0057

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C/015/015 Incoming
#3411

MINING PLAN DECISION DOCUMENT

Consolidation Coal Company

Emery Deep Mine

Federal Lease UTU-86038

Emery County, Utah

U.S. Department of the Interior
Office of Surface Mining Reclamation and Enforcement

Prepared November 2009

File in:
☐ Confidential
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Refer to Record No. 0057 Date 12082009
In C/015/015, 2009 Incoming
For additional information

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Emery Deep Mine
Federal Lease UTU-86038
Mining Plan Decision Document

United States Department of the Interior

OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT
Washington. D.C. 20240

Memorandum

NOV 6 2009

To: Wilma A. Lewis
Assistant Secretary - Land and Minerals Management

From: Glenda H. Owens
Acting Director

Subject: Recommendation for Approval of the Mining Plan Modification for Federal Lease UTU-86038 at Consolidation Coal Company's Emery Deep Mine located in Emery County, Utah

I recommend approval of this mining plan modification under the Mineral Leasing Act of 1920, as amended. My recommendation is based on:

1. Consolidation Coal Company's complete permit application package;

2. Compliance with the National Environmental Policy Act of 1969;

3. Documentation assuring compliance with applicable requirements of other Federal laws, regulations, and executive orders;

4. Comments and recommendations or concurrence of other Federal agencies, and the public;

5. The findings and recommendations of the Bureau of Land Management regarding the resource recovery and protection plan, the Federal lease requirements, and the Mineral Leasing Act; and

6. The Utah Department of Natural Resources, Division of Oil, Gas and Mining's Decision, Add Zero Zero North LBA, Consolidation Coal Company, Emery Deep Mine, C/015/0015, Task ID# 3411.

The Secretary may approve a Mining Plan for a Federal lease under 30 U.S.C. §§ 207(c) and 1273(c). In accordance with 30 CFR Chapter VII, Subchapter D, I find that the proposed mining plan modification will be in compliance with all applicable laws and regulations.

Attachment

United States Department of the Interior

OFFICE OF SURFACE MINING
Reclamation and Enforcement
P. O. Box 46667
Denver, Colorado 80201-6667

IN REPLY REFER TO:

October 28, 2009

Memorandum

To: Glenda H. Owens
Acting Director

From Allen D. Klein
Regional Director James Fulton for

Subject: Recommendation for Approval, Without Special Conditions, of the Mining Plan Modification for Federal Lease UTU-86038 at Consolidation Coal Company's Emery Deep Mine located in Emery County, Utah

I. Recommendation

I recommend approval, without special conditions, of a mining plan modification for Federal lease UTU-86038 at the Emery Deep Mine. This is a mining plan modification for an underground coal mine being permitted under the Federal lands program, the approved Utah State program, and the cooperative agreement.

My recommendation to approve the mining plan modification is based on:

1. Consolidation Coal Company's complete permit application package (PAP);

2. Compliance with the National Environmental Policy Act of 1969;

3. Documentation assuring compliance with applicable requirements of other Federal laws, regulations, and executive orders;

4. Comments and recommendations or concurrence of other Federal agencies, and the public;

5. The findings and recommendations of the Bureau of Land Management regarding the resource recovery and protection plan, the Federal lease requirements, and the Mineral Leasing Act, and;

6. The Utah Department of Natural Resources, Division of Oil, Gas and Mining's Decision, Add Zero Zero North LBA, Consolidation Coal Company, Emery Deep Mine, C/015/0015, Task ID# 3411.

If you concur with this recommendation, please sign the attached memorandum to the Assistant Secretary, Land and Minerals Management.

II. Background

The Emery Deep underground coal mine is located in Emery County, Utah, approximately four (4) miles south of the town of Emery, Utah on private and Bureau of Land Management lands. Consolidation Coal Company took over the operation of the Emery Deep mine in the early 1970's and currently employs 170 people. Due to economic conditions the Emery Deep mine was in temporary cessation from 1990 to 2002. In June 2002, mining operations resumed to meet due diligence obligations for Federal lease U-5287. In June 2003, after meeting the due diligence requirements the Emery Deep mine went back into temporary cessation until August 2004 when mining operations resumed. The current life of the approved mining operation within the approved permit area is estimated to be approximately six (6) years. The mining operations use a combination of room and pillar and longwall mining methods. The average production rate is approximately 1.2 million tons per year from the "I" coal seam and is approved to reach a maximum production rate of 1.7 million tons per year.

The original mining plan for portions of Federal lease U-5287 at the Emery Deep Mine was approved on October 22, 1985. Since that approval, there has been one (1) mining plan modification at the Emery Deep mine for Federal lease UTU-50044 that was approved on March 29, 2007.

The State's current bonded permit area covers 442.5 acres and 66.7 surface acres are currently disturbed within the permit area[1].

A total of 120.0 acres of Federal surface land, 1,000.0 acres of Federal coal and approximately 1.0 million tons of Federal coal remain within the adjacent or shadow area.

The post mining land use within the currently approved mining plan area is grazing lands and wildlife habitat.

III. The Proposed Action

On September 16, 2009, Consolidation Coal Company submitted the Zero Zero North LBA to UT-DOGM proposing to extend coal recovery operations into new Federal lease UTU-86038 for the first time. Specifically, this mining plan action would authorize the recovery of

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[1] As the result of the 2007 report entitled "A Performance Audit of Utah's Coal Regulatory Program" conducted by the Utah Office of the Legislative Auditor General, UT-DOGM no longer counts the adjacent or shadow area as part of the bonded permit area.

approximately 560,000 tons of coal within the adjacent or shadow area of Utah State permit C/015/0015, in:

Township 22 South, Range 6 East, SLBM

Section 23, S½SW¼;
Section 26, NW¼NW¼.

The life of the mining operations is expected to continue for an additional six (6) months under Utah Permit C/015/0015 and this proposed mining plan modification.

The average annual production rate and the maximum production rate would not change.

The approved State permit area would not increase from its present 442.5 acres and surface disturbance within the approved State permit area would not increase from its present 66.7 acres.

This mining plan modification will add 40.0 acres of Federal surface lands and 120.0 acres of Federal coal to the adjacent or shadow area shown on the map included with this decision document.

This mining plan modification will authorize the recovery of approximately 560,000 additional tons of Federal coal to the adjacent or shadow area, as shown on the map included with this decision document.

The post mining land use within the permit and mining plan area would not change.

The UT-DOGM has placed two (2) conditions to its permitting action. The first condition stated, "Receipt of 6 clean copies for incorporation." The second condition states, "Receipt of signed federal lease agreement from the Bureau of Land Management." Resolution of this condition should be satisfied by the BLM's October 27, 2009, issuance of Federal lease UTU-86036 with the effective date of October 1, 2009.

Consolidation Coal Company's proposal does not require any additional special conditions to comply with Federal laws.

IV. Review Process

The UT-DOGM reviewed the PAP under the Utah State program, the Federal lands program (30 CFR Chapter VII, Subchapter D), and the Utah cooperative agreement (30 CFR § 944.30). Pursuant to the Utah State program and the cooperative agreement, UT-DOGM approved of the permit revision on October 7, 2009.

OSM has consulted with other Federal agencies for compliance with the requirements of applicable Federal laws. Their comments and/or concurrences are included in this decision document.

The Bureau of Land Management (BLM) reviewed the Resource Recovery and Protection Plan for compliance with the Mineral Leasing Act of 1920, as amended and 43 CFR Part 3480. The BLM recommended approval of the mining plan in a memorandum dated October 6, 2009. In this same memorandum the Bureau of Land Management concurred with the proposed mining plan modification with respect to Federally owned surface lands under their management within the proposed mining plan area.

In accordance with the September 24, 1996, Biological Opinion and Conference Report from the U.S. Fish and Wildlife Service (USF&WS) to OSM, UT-DOGM initiated informal consultation with the USF&WS on threatened and endangered species. Surveys of the Federal lease tract conducted by the Bureau of Land Management and Mt. Nebo Scientific, Inc. for the permittee determined that no Federally listed threatened, endangered, or candidate species nor their habitat exist within the Federal lease. During a September 28, 2009, consultation USF&WS suggested that species-specific protective measures be developed for Burrowing owls (*Athene cunicularia*) listed on Utah's Sensitive Species list as species of concern and protected under the Migratory Bird Treaty Act of 1918, as amended. The permittee has committed to implement a protection and enhancement plan for the Burrowing owls.

Regarding White-tailed prairie dogs (*Cynomys leucurus*) this species warrants no Federal or specific State protection but the area of the permit revision does contain high value habitat. UT-DOGM, the Utah Division of Wildlife Resources, permittee, and USF&WS will meet in the future to develop a specific protection plan and enhancement measures.

BLM consulted with the State Historic Preservation Officer (SHPO) concluding that eligible sites will be monitored for subsidence effects and that there should be no adverse effects to them. The SHPO concurred with this finding on February 16, 2009. The protection and preservation of previously unidentified prehistoric or historic resources is ensured by BLM lease stipulations, a condition of the UT-DOGM issued permit and the Assistant Secretary Land and Minerals Management's mining plan approval.

I have determined that the mining plan modification does not include any lands within an area designated as unsuitable for all or certain types of surface coal mining operations under section 522(b) of SMCRA. The permit findings prepared by the regulatory authority demonstrate that reclamation as required by the Act and regulatory program is technologically and economically feasible.

The mining plan modification area is not on any Federal lands within the boundaries of any national forest.

I have determined that approval of this mining plan modification will not have a significant impact on the quality of the human environment. The Environmental Assessment Number UT-070-2008-104 dated January 2009, titled *Consolidation Coal Company, Emery Mine-Miller Canyon Tract Lease, UTU-86038* and the Finding of No Significant Environmental Impact (FONSI) dated March 2, 2009, both prepared by the Bureau of Land Management describe the impacts that may result from approval of this mining plan modification and its alternatives. The FONSI and supporting environmental analyses are included in this decision document.

OSM's review of the proposed action did not identify any issues that required resolution via the addition of special conditions to the mining plan modification approval.

The UT-DOGM determined that $3,510,000.00 is adequate for the total reclamation of Utah Permit C/015/0015 associated with this mining plan. The bond is payable to the State and the United States of America.

A chronology of events related to the processing of the PAP and this mining plan decision is included with the decision document. The information in the PAP, and other information identified in the decision document, has been reviewed by UT-DOGM staff in coordination with the OSM Federal Lands State Coordinator.

OSM's administrative record of this mining plan modification consists of the following:

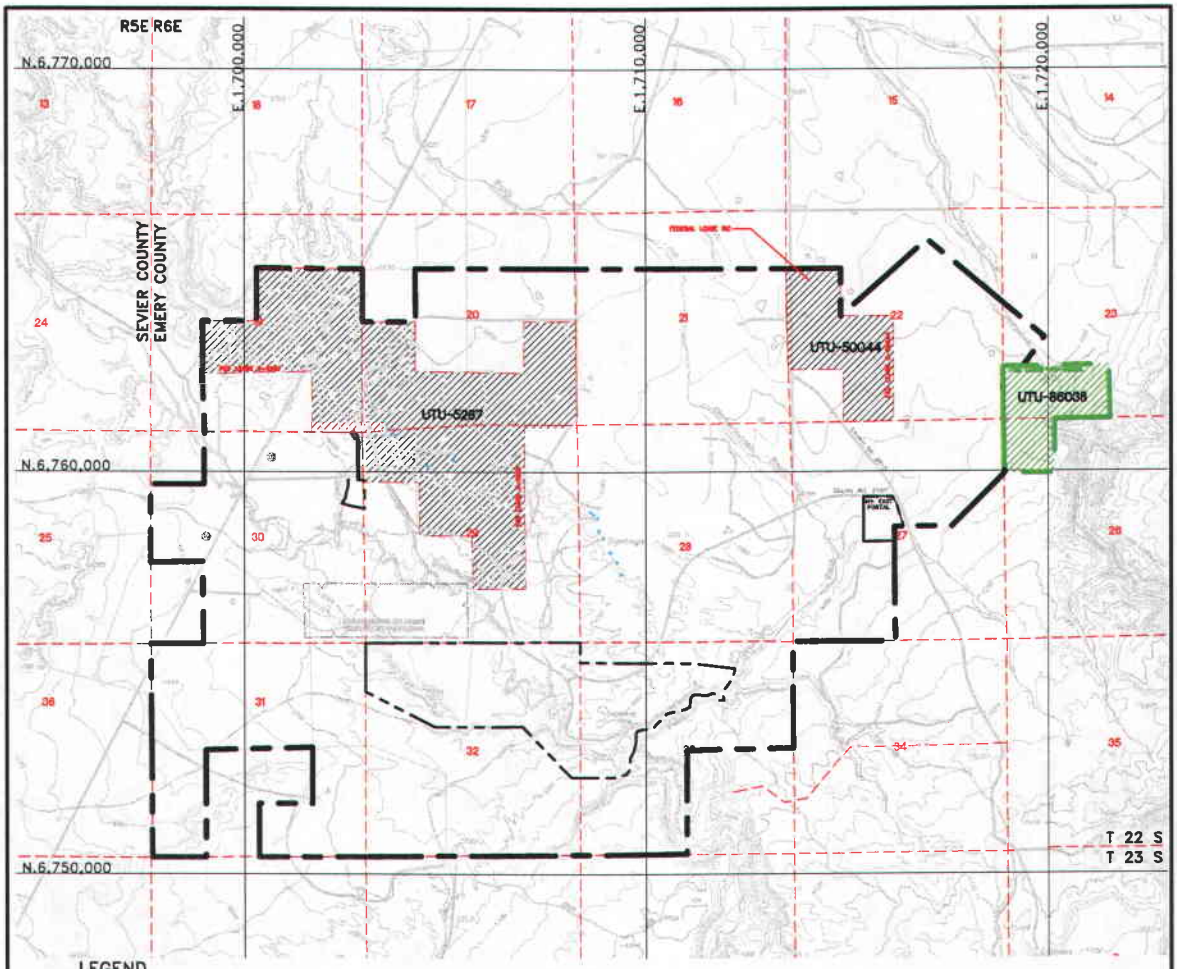
- the PAP submitted by Consolidation Coal Company, and updated through October 5, 2009,

- the Utah Department of Natural Resources, Division of Oil, Gas and Mining's Decision, Add Zero Zero North LBA, Consolidation Coal Company, Emery Deep Mine, C/015/0015, Task ID# 3411.

- the Environmental Assessment Number UT-070-2008-104 dated January 2009, titled *Consolidation Coal Company, Emery Mine-Miller Canyon Tract Lease, UTU-86038* and the Finding of No Significant Environmental Impact (FONSI) dated March 2, 2009, both prepared by the Bureau of Land Management,

- correspondence developed during the review of the PAP.

Attachments



SITE PLAN

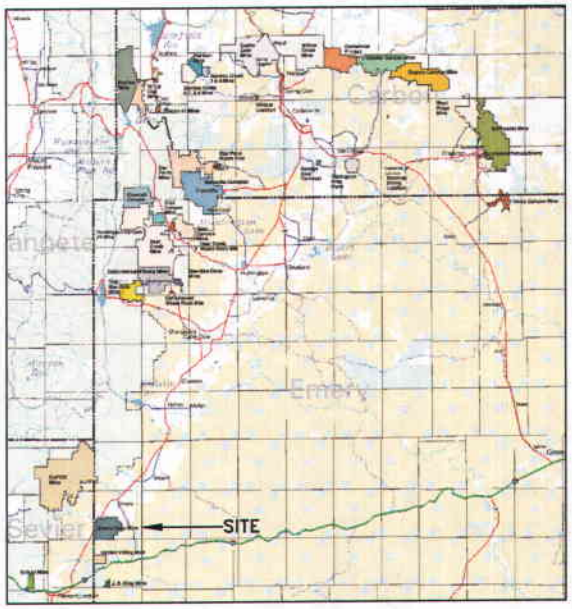
0 0.15 0.3 0.6 miles

1"=3000'

LEGEND

- PREVIOUS MINING PLAN APPROVAL
- PROPOSED MINING PLAN MODIFICATION
- PERMIT AREA BOUNDARY
- ADJACENT AREA FOR NON-WATER RESOURCES. FOR THE AREA OF HYDROLOGIC EVALUATION, SEE PLATE VI-4
- ADJACENT AREA BOUNDARY ADDITION

STATE OF UTAH



SITE LOCATION MAP

EMERY DEEP MINE

C00150015
CARBON COUNTY, UTAH
AUGUST, 2009

G:\UC982\08 - Full extraction plans\ZZNLBA\EMERY DEEP MINE-ZNLBA.dwg

CHRONOLOGY

Emery Deep Mine
Federal Leases Federal Lease UTU-86038
Mining Plan Decision Document

DATE	EVENT
February 16, 2009	The State Historic Preservation Office provided its comments on the proposed mining plan modification as a part of the Bureau of Land Management's leasing action.
September 17, 2009	Consolidation Coal Company submitted the permit application package (PAP) under the approved Utah State Program to the Utah Division of Oil, Gas and Mining (UT-DOGM) for a permit revision for the Emery Deep Mine.
September 22, 2009	The Office of Surface Mining Reclamation and Enforcement (OSM) received the PAP.
September 28, 2009	The U.S. Fish and Wildlife Service provided its final consultation on the mining plan.
October 6, 2009	The Bureau of Land Management (BLM) provided its findings and recommendations on the approval of the mining plan, with respect to the Resource Recovery and Protection Plan and concurrence with the approval of the mining plan with respect to the management of Federally owned surface lands under its control.
October 7, 2009	UT-DOGM approved the PAP.
October 27, 2009	BLM issues Federal lease UTU-86038 with an effective date of October 1, 2009.
October 28, 2009	OSM's Western Region recommended to the Director, OSM, that the mining plan action be approved.

U.S. DEPARTMENT OF THE INTERIOR
OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT
FINDING OF NO SIGNIFICANT IMPACT
FOR
Emery Deep Mine
Federal Coal Lease UTU-86038
Mining Plan Decision Document

1. Introduction

Consolidation Coal Company submitted a permit application package (PAP) for a permit revision for the Emery Deep Mine to the Utah Department of Natural Resources, Division of Oil, Gas and Mining (UT-DOGM). The PAP proposed extending underground mining operations into approximately 120 acres of new Federal lease UTU-86038. Under the Mineral Leasing Act of 1920, the Assistant Secretary, Land and Minerals Management, must approve, approve with conditions, or disapprove the mining plan modification for Federal lease UTU-86038. Pursuant to 30 CFR Part 746, the Office of Surface Mining Reclamation and Enforcement (OSM) is recommending approval of the mining plan modification action without special conditions.

2. Statement of Environmental Significance of the Proposed Action

The undersigned person has determined that the above-named proposed action would not have a significant impact on the quality of the human environment under section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4332(2)(C), and therefore, an Environmental Impact Statement is not required.

3. Reasons

This finding of no significant impact is based on the attached Environmental Assessment Number UT-070-2008-104 dated January 2009, titled *Consolidation Coal Company, Emery Mine-Miller Canyon Tract Lease, UTU-86038* and the Finding of No Significant Environmental Impact (FONSI) dated March 2, 2009, both prepared by the Bureau of Land Management, and with respect to updated information on threatened and endangered species and historic preservation. These documents have been independently evaluated by OSM and determined to assess the environmental impacts of the proposed action adequately and accurately and to provide sufficient evidence and analysis for this finding of no significant impact.

Manager, Field Operations Branch

10/15/09
Date

United States Department of the Interior
Bureau of Land Management

Environmental Assessment UT-070-2008-104

January 2009

CONSOLIDATION COAL COMPANY
EMERY MINE-MILLER CANYON TRACT LEASE
UTU-86038

Emery County, Utah

Consolidation Coal Company
CNX Center
1000 CONSOL Energy Drive
Canonsburg, PA 15317

US Department of the Interior
Bureau of Land Management
Price Field Office
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Price, UT 84501
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BLM

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Appendices

1 PURPOSE AND NEED

1.1 Introduction

This Environmental Assessment (EA) has been prepared to disclose and analyze the environmental consequences of the Miller Canyon Tract (UTU-86038) (the Tract) coal leasing and mining project (the Project) as proposed by Consolidation Coal Company (Consol). The EA is a site-specific analysis of potential impacts that could result with the implementation of a proposed action or alternatives to the proposed action. The EA assists the Bureau of Land Management (BLM) in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any "significant" impacts could result from the analyzed actions. "Significant" is defined by NEPA and is found in regulation 40 CFR 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact (FONSI). If the decision maker determines that this project has "significant" impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record (DR) may be signed for the EA approving the selected alternative, whether the proposed action or another alternative. A DR, including a FONSI statement, documents the reasons why implementation of the selected alternative would not result in "significant" environmental impacts (effects) beyond those already addressed in the Price Field Office Record of Decision (ROD)/Resource Management Plan (RMP) (BLM 2008a), henceforth referred to as the Price RMP.

1.2 Background

Consol submitted an Application for Lease of Federal Coal Deposits to the BLM in February 2008. Under this application, Consol proposes to expand its current underground coal operation at its Emery Mine, located approximately 65 miles south of Price, in Emery County, Utah. The Emery Mine is developed in the Emery Coal field, which is designated by the BLM as a Known Recoverable Coal Resource Area (KRCRA) The underground operations would be expanded to the east of the existing mine into the Miller Canyon Tract. The BLM administers the coal/mineral estate on the entire Tract, as well as the surface rights on the southern 40-acre parcel. The Tract contains 120 acres that are currently utilized for grazing. Consol would lease this 120-acre tract from BLM for the purpose of extracting the coal reserves by underground mining. The Tract is located at:

Township 22 South, Range 6 East, BLM, Utah		Ownership	
	Acres	**Surface**	**Coal**
Section 23: S½SW¼	80.0	Consol	BLM
Section 26: NW¼ NW¼	40.0	BLM	BLM
Total	120.0		

The small town of Emery is located approximately 3 miles to the north of the Tract. Access to the mine area is provided via Interstate 70 (I-70), located 10 miles to the south of the Tract, and Utah State Highway 10 (SR 10), extending northward from I-70 along the western permit boundary of the Emery Mine. SR 10 continues in a northerly direction to the towns of Emery and Ferron. Refer to **Figure 1** for the location of the Tract. The location of the Tract in relationship to the Emery Mine, as well as the associated permit and Logical Mining Unit (LMU) boundaries, is shown on **Figure 2**.

The underground panels proposed for mining the Tract are shown on **Figure 3.** The surface effects of mining in the Tract would extend no further east than the 'No Subsidence' line, which is also shown on **Figure 3.**

Connected Actions

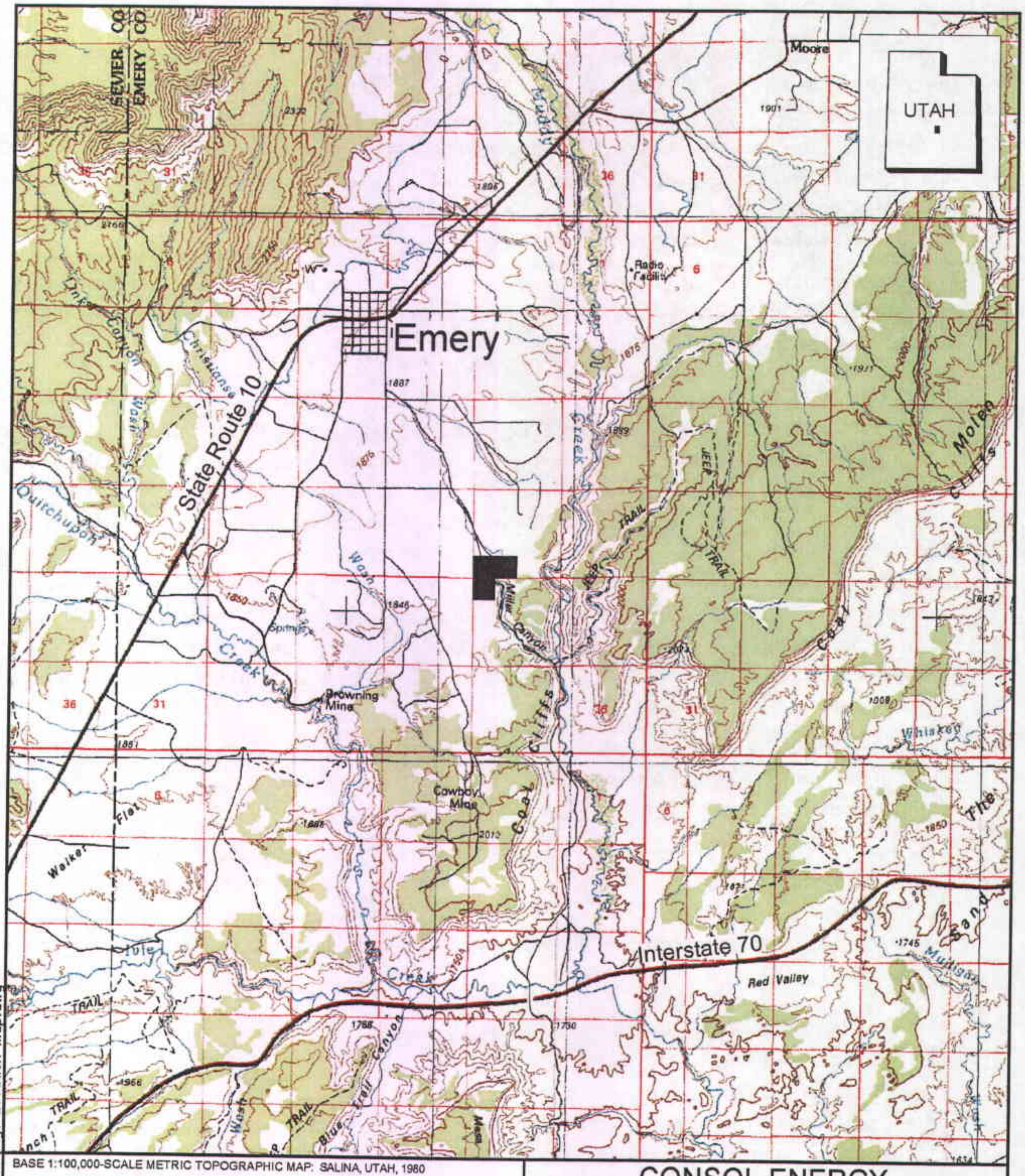
The leasing action described in Chapter 2 does not authorize surface disturbance. Therefore, environmental impacts in this EA are analyzed as connected actions. Connected actions are defined by the Council on Environmental Quality (CEQ 1508.25) as actions that: 1) automatically trigger other actions which may require environmental impact statements; 2) cannot or will not proceed unless other actions are taken previously or simultaneously; and 3) are interdependent parts of a larger action and depend on the larger action for their justification. According to 40 CFR 1508.25(a)(1) of NEPA, BLM is required to consider the subsequent actions – in this case, mining – that would be authorized by a lease as connected actions. Connected actions are the basis of the environmental analysis from which leasing decisions would be made.

The surface effects of coal mining would be the connected action described and analyzed in this EA. Underground coal mining can result in subsidence of overlying rock. Cracks from subsidence extend upwards, and can reach the surface.

If the leasing proposal is approved, Consol would have to submit a revision to the existing mining plan for the Emery Mine, which has been permitted by Utah Division of Oil, Gas & Mining (UDOGM). The Tract will be offered for lease by competitive sale and it is possible that a company other than Consol could obtain the right to lease and develop this Tract, thus negating the connected action.

1.3 Need for the Proposed Action

Consol has filed an application with the BLM pursuant to 43 CFR Subpart 3425, to lease Federal coal in the Tract. Consol owns and operates the Emery Mine, directly to the west of this Tract. Access to the coal in the Tract would be facilitated by the Emery Mine's 4 East Portal. Expansion of the Emery Mine into the Tract would provide Consol the opportunity to mine a small, but significant Federal coal resource. In the event this coal is not mined as part of the near-term mine plan, the resource will in all likelihood never be recovered due to isolation by old workings and oxidation/burn limits.



BASE 1:100,000-SCALE METRIC TOPOGRAPHIC MAP: SALINA, UTAH, 1980

EXPLANATION

Tract Boundary (T22S, R6E, Sections 23 and 26, Emery County, Utah)

1 0 1 2 3 4 KILOMETERS

1 0 1 2 MILES

N

CONSOL ENERGY

MILLER CANYON TRACT EA

FIGURE 1
LOCATION MAP

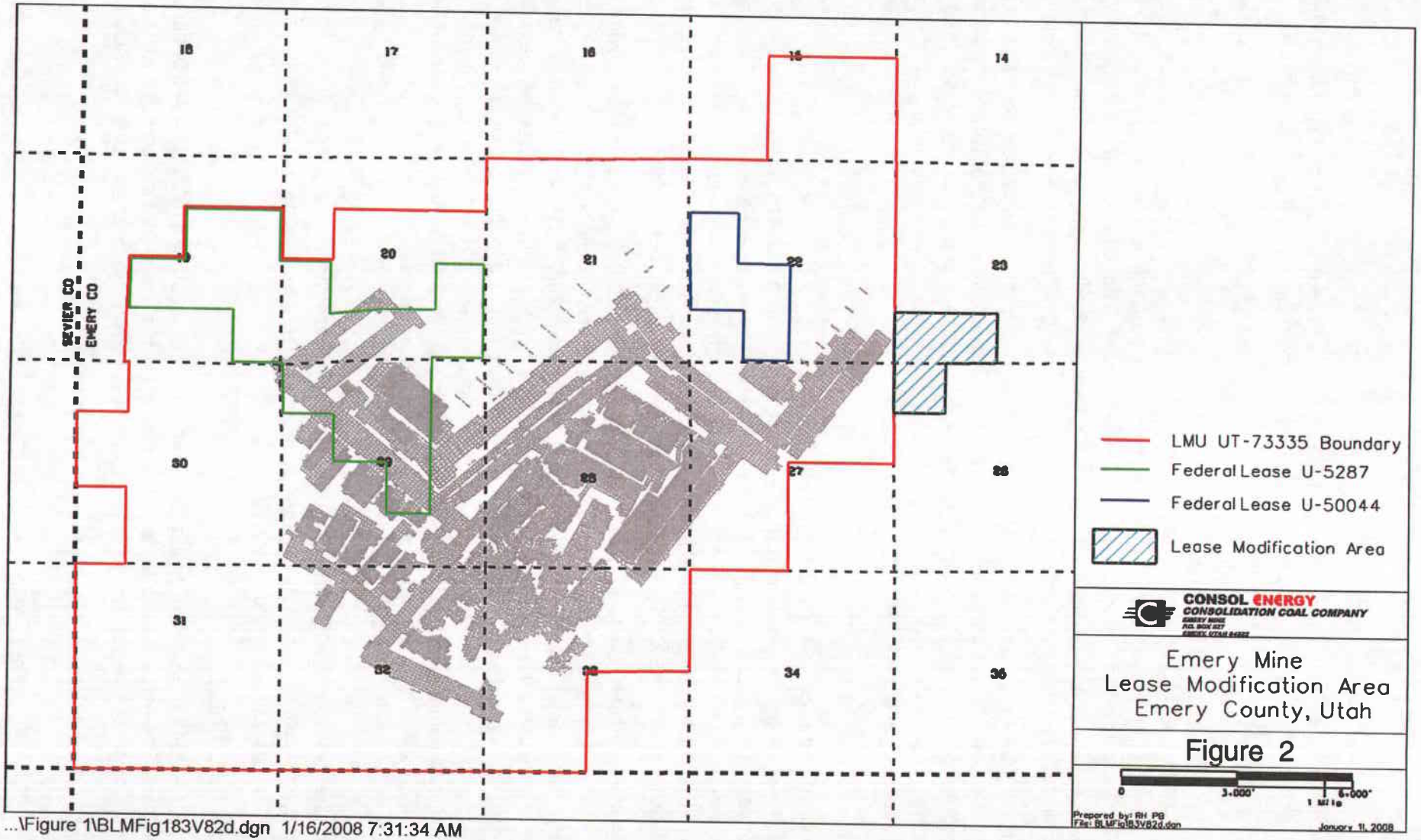
jbr environmental consultants, inc.

DESIGN BY	CP	DRAWN BY	CP	SCALE	1:100,000

DATE DRAWN 12/18/08

LAST REVISION DATE

drawings\Consol Miller Canyon\Fig1 Location Map.dwg



...\Figure 1\BLMFig183V82d.dgn 1/16/2008 7:31:34 AM

The need for this Federal leasing action to develop coal resources is to further the economic viability of Castledale, Ferron, Emery County and surrounding counties, and to help meet the growing energy demands of the nation.

1.4 Purpose(s) of the Proposed Action

The purpose of the Project is to continue the existing coal mining operations at Consol's Emery Mine by expanding into the adjacent Tract. Development of the coal resource associated with this Lease by Application (LBA) from the adjacent workings would assure the maximum economic recovery of this federal coal resource, as well as the Emery Mine site.

BLM is considering approval of leasing and private production from federal coal leases because the activity is an integral part of BLM's coal leasing program under the authority of the Mineral Leasing Act of 1920, as amended by the Federal Land Policy and Management Act of 1976. Additionally, coal exploration and development is recognized as an appropriate use of public lands according to the Price RMP (2008a).

1.5 Conformance with BLM Land Use Plan(s)

This EA was written to comply with BLM regulations for mining activities on public lands under the General Mining Law of 1872, subject to compliance with the Federal Land Policy and Management Act (FLPMA), which is implemented through surface management regulations (43 Code of Federal Regulations [CFR] 3809) as mandated by the Council of Environmental Quality Regulations (40 CFR 1500-1508) and the BLM NEPA Handbook (BLM 2008b).

The Proposed Action and Alternatives described in Section 2.0 are in conformance with the Price RMP (2008a) and are consistent with federal, state, and local laws, regulations, and plans. Although this specific leasing and mining action is not mentioned in the RMP, the development of this coal resource is supported by the Price RMP Minerals and Energy Resources objective: "to maintain coal leasing, exploration, and development within the planning area while minimizing impacts to other resource values", as stated on page 126 (BLM 2008a). In addition, the Project conforms to management guidance for riparian zones overlying the Emery coal field, such riparian areas are designated as no-surface-occupancy areas.

1.6 Relationship to Statutes, Regulations, or other Plans

The Project would comply with all other applicable Federal and State of Utah statutes and regulations, agency policy, and local ordinances.

Federal Compliance:

Clean Air Act (42 U.S.C. 1857 et seq.), as amended and recodified (42 U.S.C. 7401 et seq.). *Compliance.* The proposed project is not expected to violate any Federal or State air quality standards, or hinder the attainment of air quality objectives in the local air basin. The BLM has

determined that the proposed project would have no significant adverse effects on the future air quality of the area and is in compliance with this act.

Clean Water Act (33 U.S.C. 1251 et seq.). *Compliance.* Miller Canyon would be considered to be a jurisdictional Waters of the U.S. and thus compliance with the Clean Water Act would be required. The project would require the continued discharge of intercepted groundwater as a point source discharge into Waters of the U.S., however the discharge would be outside of the Tract, and commingled with existing discharges from the Emery Mine. The applicant has obtained a Utah Pollutant Discharge Elimination System (UPDES) permit to regulate this discharge as well as any storm water runoff from the existing Emery Mine site. As mandated by this permit, a Storm Water Pollution Prevention Plan (SWPPP) has been developed prior to issuing the UPDES permit and is being followed at the Emery Mine site. No new surface disturbance is anticipated for the Tract.

Endangered Species Act (16 U.S.C. 1531 et seq.). *Compliance.* Consultation with USFWS was not undertaken or deemed necessary for this Project as no federally listed species or designated Critical Habitats occur within the Tract would be impacted by the Project.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. *Compliance.* The order directs all Federal agencies to identify and address adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. The proposed project would benefit the general public by helping to ensure local jobs and the nation's energy supply. In addition, all residents have the opportunity to participate in public meetings and comment on proposed plans.

Migratory Bird Treaty Act (16 U.S.C. 703 et seq.). *Compliance.* Miller Canyon itself provides limited habitat for migratory birds. No vegetation or habitat would be directly removed from the Tract and no take of migratory birds would occur as a result of the project. Riparian vegetation that has been supported largely by flood irrigation may be lost along Miller Canyon partially as a result of subsidence, although this occurrence is also likely to occur in the near future anyway due to a restructuring of the regional irrigation system from flood irrigation to sprinkler systems (see **Section 3.3.1**).

National Environmental Policy Act (42 U.S.C. 4321 et seq.). *Partial Compliance.* The comments and issues identified by the public during review of this draft EA will be analyzed and addressed as appropriate. The final EA will include comments and responses resulting from the public review.

National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.), Protection of Historic Properties (36 CFR 800). *Compliance.* The project as planned is in compliance with Section 106 of the National Historic Preservation Act. Adverse effects to the National Register eligible sites will be mitigated. Any cultural, historical, or prehistoric resources inadvertently discovered, would be coordinated with BLM and the State Historic Preservation Office (SHPO) and inspected by a professionally trained archeologist. In addition, the UDOGM permitting process fully evaluates impacts and needed mitigation for cultural resources.

Rangeland Health Standards as developed by the Secretary of the Interior on February 22, 1995 will be met for the Tract. Watersheds will be in maintained in proper functioning physical condition. Ecological processes will be maintained to support biotic populations and communities. Water quality will comply with Utah water quality standards. Habitats of federal threatened and endangered species, federal proposed, category 1 and 2 federal candidate and other special status species will be restored or maintained.

Native American Trust Resource Policy standards are presented in the Department of the Interior Comprehensive Trust Management Plan dated March 28, 2003. There are no coal lands within the jurisdiction of the BLM's Price Field Office for which the BLM is the trustee.

Federal Mine Safety and Health Act of 1977. The Emery Mine is in compliance with Mine Safety and Health Act (MSHA) requirements.

State and Local Approvals:

Utah Division of Oil, Gas and Mining. The Emery Mine was assigned permit number ACT/015/015 by the UDOGM.

Native American Consultation. A letter was sent to appropriate tribes to inform them of the Project and allow the tribes to discuss their issues concerning the Proposed Action prior to Project implementation. No response from the tribes has been received to date.

Emery County General Plan (1999). Emery County feels that public land should be managed under the "multiple-use and sustained yield" concept, which includes mining. To help make decisions regarding the management and use of natural resources in Emery County, the County has established a series of Memoranda of Understanding between Emery County and the Bureau of Land Management, among other agencies (Emery County 1999: Position Statement, Multiple Use). In general, the County recognizes the necessity of mining as its economic base.

1.7 Identification of Issues

On April 8, 2008 and May 21, 2008, meetings were held at the BLM Price Field Office with Consol, BLM resource specialists, and local officials and stakeholders to discuss the Project and any anticipated resource concerns. In addition, several BLM resource specialists toured the Miller Tract on May 21, 2008 and others subsequently visited the site on June 4, 2008.

Public scoping for the project was conducted via the Environmental Notification Bulletin Board (ENBB). A brief description of the project was posted on October 15, 2008. No communications have thus far been received as a result of this posting.

1.7.1 Resources Dismissed from Additional Analysis

Several resources were dismissed from further analysis in this EA. The list of resources, and the rationale for dismissing them, is included as Appendix A.

1.7.2 Issues Carried Forward for Analysis

The following issues and concerns were raised during scoping meetings.

- The Miller Canyon County Road extends through the Tract (County Road 912), near the eastern extent of the mineable portion of the reserve.
- Subsidence caused by mining could impact surface resources, including grazing allotments, soils, water, vegetation, and wildlife.

Based on the Price Field Office's Interdisciplinary Team Analysis and public scoping, the following issues are carried forward for analysis in this EA:

1.7.2.1 Water Resources

- The hydrologic system, both surface and groundwater, could be altered by subsidence and/or by mine dewatering. Surface water conveyances, including Miller Canyon and numerous agricultural ditches, could be physically altered by subsidence if elevation differentials result in grade changes and upland runoff patterns could be similarly altered. Subsidence-caused tension cracks could also result in loss of flow to or within these conveyances.
- Mining could intercept groundwater from the Ferron Sandstone aquifer, and the consequent dewatering could lower the potentiometric surface within and near the mined area. Groundwater flow from a small spring located within the Tract could be diminished or eliminated due to either subsidence or mine dewatering.

1.7.2.2 Farmlands (Prime and Unique)

- Within the 55 acres of the Tract where full extraction would occur, planned subsidence may locally affect surface soils through slight but non-uniform settling and development of tension cracks. Soil erosion has the potential for becoming accelerated in areas where surface runoff flows into the subsidence surface cracks.

1.7.2.3 Livestock Grazing

- The subsidence tension cracks could create difficult topography situations for cattle, possibly causing injuries if the tension cracks are deep. The area is currently being leased for grazing from both the BLM and Consol, and close to 100 cattle are utilizing the area. If the hydrology of the area is altered by subsidence or irrigation conversion, this could have an impact on water sources for grazing animals..

1.7.2.4 Wetlands/Riparian Zones

- If the underground mining intercepts the groundwater there could be impacts to wetlands and riparian zones within and downstream of the Tract. If the hydrology is altered and the wetland and riparian zones become too dry to support the vegetation, this would result in a loss of wetlands and riparian zone.

1.7.2.5 Fish and Wildlife, including special status species and migratory birds

- Two white-tailed prairie dog (*Cynomys leucurus*; Sensitive species) towns were identified in the Tract. The tension cracks that develop as a result of subsidence could alter the prairie dog burrows and adversely affect prairie dogs.

- If burrowing owls (*Athene cunicularia*; Sensitive species) are utilizing prairie dog burrows and tension cracks develop during the nesting season, there could be adverse impacts to burrowing owls.
- Riparian habitat for migratory birds and other wildlife that utilize seasonally wet areas may be diminished if subsidence leads to reduced water availability for these habitats in the Project Area (see **1.7.2.3**).

1.8 Summary

This chapter has presented the purpose and need of the proposed project, as well as the relevant issues, those elements of the human environment that could be affected by Project implementation. The Proposed Action and No Action alternatives are presented in **Chapter 2**. The potential environmental impacts or consequences resulting from the implementation of each alternative are then analyzed in **Chapter 4** for each of the identified issues.

2 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION

2.1 Introduction

The objective for each alternative is to successfully lease and mine the Tract with the least amount of environmental damage while maximizing the amount of coal recovery. Each alternative was considered based on site-specific criteria. The leasing and associated mining of the Tract must be economically feasible, allow for the maximum recovery of the coal resources, and be environmentally sensitive, creating minimal or no environment impacts in relation to the BLM's 15 critical elements. Finally, the proposed actions must agree with the BLM's management plan for the area.

Based on the above-noted criteria, numerous alternatives were identified for consideration in this EA. However, after initial consideration, three of these alternatives were dismissed from further analysis (see **Section 2.4** below). The two remaining alternatives (designated as Alternatives A and B) were carried forward for further consideration. The Proposed Action, Alternative A, would be a continuation of Consol's current underground mining operations into the Tract. Alternative B, the No Action Alternative, is mandated by 40 CFR 1502.14(d) and provides the conceptual baseline for impacts.

The coal lease application will be processed and evaluated under the following authorities:

- Mineral Leasing Act of 1920, as amended (MLA);
- Federal Coal Leasing Amendments Act of 1976;
- Federal Land Policy and Management Act of 1977 (FLPMA);
- Surface Mining Control and Reclamation Act of 1977 (SMCRA);
- National Environmental Policy Act of 1969 (NEPA);
- Federal Regulations 43 CFR 3425.

The Office of Surface Mining Reclamation and Enforcement (OSM) has jurisdiction over any mining plan application that may result from the leasing decision made by the BLM. OSM is a cooperating agency in the preparation of this EA (40 CFR 1501.6). OSM has the responsibility, through SMCRA, to administer programs that regulate surface coal mining operations and surface effects of underground coal mining operations. In 1981, the UDOGM program to regulate surface coal mining and the surface effects of underground coal mining on non-federal lands within the state of Utah was approved by the Secretary of the Interior, pursuant to Section 503 of SMCRA. In 1987, UDOGM and the Secretary of the Interior entered into a cooperative agreement authorizing UDOGM to regulate surface coal mining operations and surface effects of underground coal mining on federal lands with the state, pursuant to Section 523(c) of SMCRA.

In Utah, federal coal leaseholders must submit permit application packages to OSM and UDOGM for proposed mining and reclamation activities on federal lands in the state. UDOGM

reviews the packages to ensure compliance of the permit application with permitting requirements and that the coal mining operation will meet the performance standards of the approved permanent program. If the permit package does comply, UDOGM will issue the applicant a permit to conduct coal mining activities as specified in the approved Mine Reclamation Plan (MRP).

OSM, BLM, and other federal agencies also review the permit application package to ensure that it complies with the terms of the coal lease, MLA, NEPA, and other federal laws and regulations. After the review, OSM can either recommend approval to the Assistant Secretary of Land and Minerals Management, approval with conditions, or disapproval of the MLA mining plan. Before the MLA mining plan can be approved, BLM and the surface managing agency (if other than BLM) must concur with OSM's recommendation.

Consol's Emery Mine has been expanded in the past to maximize the recovery of the coal reserve. Consol plans additional step-wise expansions to continue mining as long as it is economical, including an expansion associated with the mining of the Tract. The Emery Mine MRP, most recently revised in April, 2008, has been approved by UDOGM under Permit Number ACT/015/015. That MRP includes numerous environmental studies that were reviewed in the preparation of this EA.

When Consol's MRP was revised in March, 2007, it was predicted the Emery Mine would continue to produce coal from the IJ Zone until 2013. As the last of the coal reserves are mined from the existing owned and leased coal reserve, Consol plans to extend the life of the mine by leasing new coal associated with the Tract (which is located adjacent to the east of the current underground mining operations). By adding this Tract, Consol will economically maximize the amount of coal recovered at the Emery Mine.

Direct surface disturbances would be limited to areas of subsidence, thus reducing direct environmental impacts for most resources. The ability of the underground mining operation to recover the greatest amount of the coal reserve possible under the Proposed Action would represent a positive effect.

Because Alternative B (No Action) would not allow for the recovery of any of the coal reserves associated with the Tract, there would only be one issue: the unfulfilled objective of the BLM to maximize the recovery of coal reserves on federal lands. Denying the leasing proposal would leave a substantial amount of federal coal isolated within the Tract. Based on drill hole information from Consol, there are no other coal seams of economic importance within or adjacent to the Tract. As a result, the I seam reserves would more than likely be sterilized from future mine development and not recovered.

2.2 Alternative A – Proposed Action

Consol submitted a lease application to the BLM in February 2008, proposing to lease the Tract. The mineral estates within the boundaries of the Tract are owned by the United States of America and administered by BLM. A total of 80 surface acres within the 120-acre Tract are privately

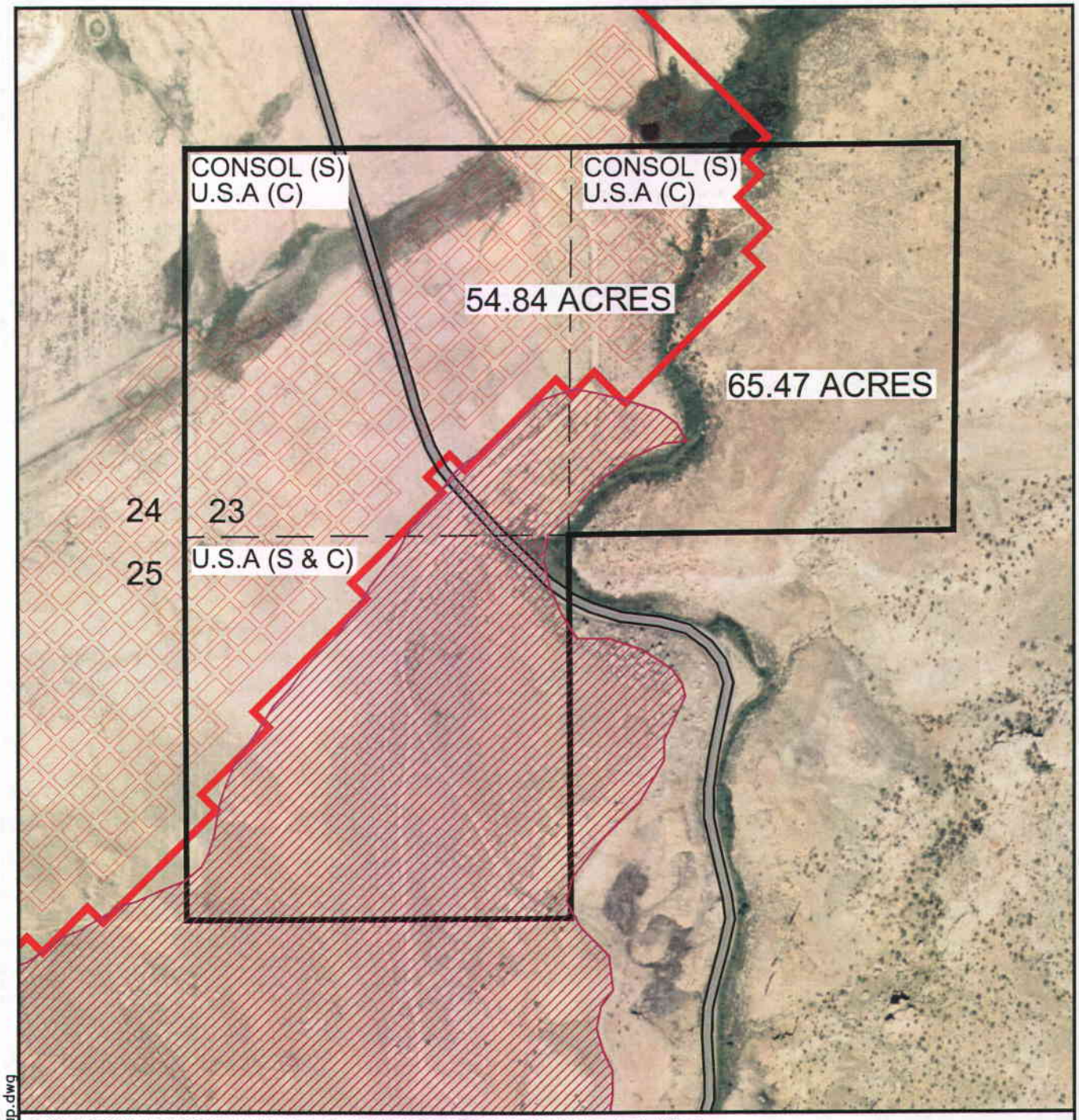
owned (split estate) by Consol, the remaining 40 surface acres are owned by the United States of America (**Figure 3**).

If the application is approved, the lease would allow for the expansion of Consol's current underground coal operation at its Emery Mine, located approximately 65 miles south of Price, Utah. Under Alternative A, Consol proposes to expand the Emery Mine underground operations to the east of the existing mine area into the Tract, and extract the viable I seam coal reserves via the 00 North Panel. Based upon an assessment of these reserves by Consol, mining would occur beneath approximately 55 acres within the Tract; the remaining approximately 65 acres do not contain viable coal and would not be subject to mining. Approval of Alternative A would allow Consol to continue operations for an additional four to five months.

The underground mining operations at the existing Emery Mine are conducted in the I seam of the IJ Zone utilizing the room and pillar mining method. There are no surface mining operations at the mine site. Access to the existing underground workings is through the 4th East Portal. Several abandoned drift openings at the outcrop of the seam are located in the canyon near the office. These openings consisted of intake, return, and belt entries, and are currently sealed. The 4th East portal uses a ramp excavation down to the top of the IJ seam.

Development of the current mine area has been accomplished using seven or eight entry mains with entries on 80-foot centers and crosscuts on 100-foot centers. The submains for panel development typically use a five-entry system with similar entry centers. Panels are developed off the main or submains with a four- or five-entry system with rooms driven on either side of the development entries (room and pillar mining, unplanned subsidence). In some areas of the existing mine, Consol uses a partial extraction technique during retreat mining, which may leave the roof intact. Other areas of the existing mine have been designated as full extraction (planned subsidence).

Access to coal within the Tract will be via the existing 4th East Portal, located approximately one mile to the southwest of the Tract. Mining within approximately 55 acres of the Tract will be undertaken in the I seam using a continuous miner section. Federal reserves projected to be mined from the Tract within the I seam total approximately 444,000 recoverable tons (this total includes 25,000 tons of coal from full extraction mining under the Miller Canyon Road). Retreat mining, with planned subsidence, will occur within the Tract, yielding optimum recovery of the coal resource. Production from the mine, averaging about 1.2 MM tons per year, is marketed raw as a steam and industrial coal product for the steam, industrial, and coking coal markets.



BASE USGS 7.5' TOPOGRAPHIC MAP: EMERY EAST, 1968 PHOTOREVISED 1978, UTAH

EXPLANATION

- New Road
- Tract Boundary (T22S, R6E, Sections 23 and 26, Emery County, Utah)
- Non-subsidence Boudary
- Forecasted 00 North Panel
- Burn.Oxidized Area

500 0 500 Feet

N

CONSOL ENERGY
MILLER CANYON TRACT EA

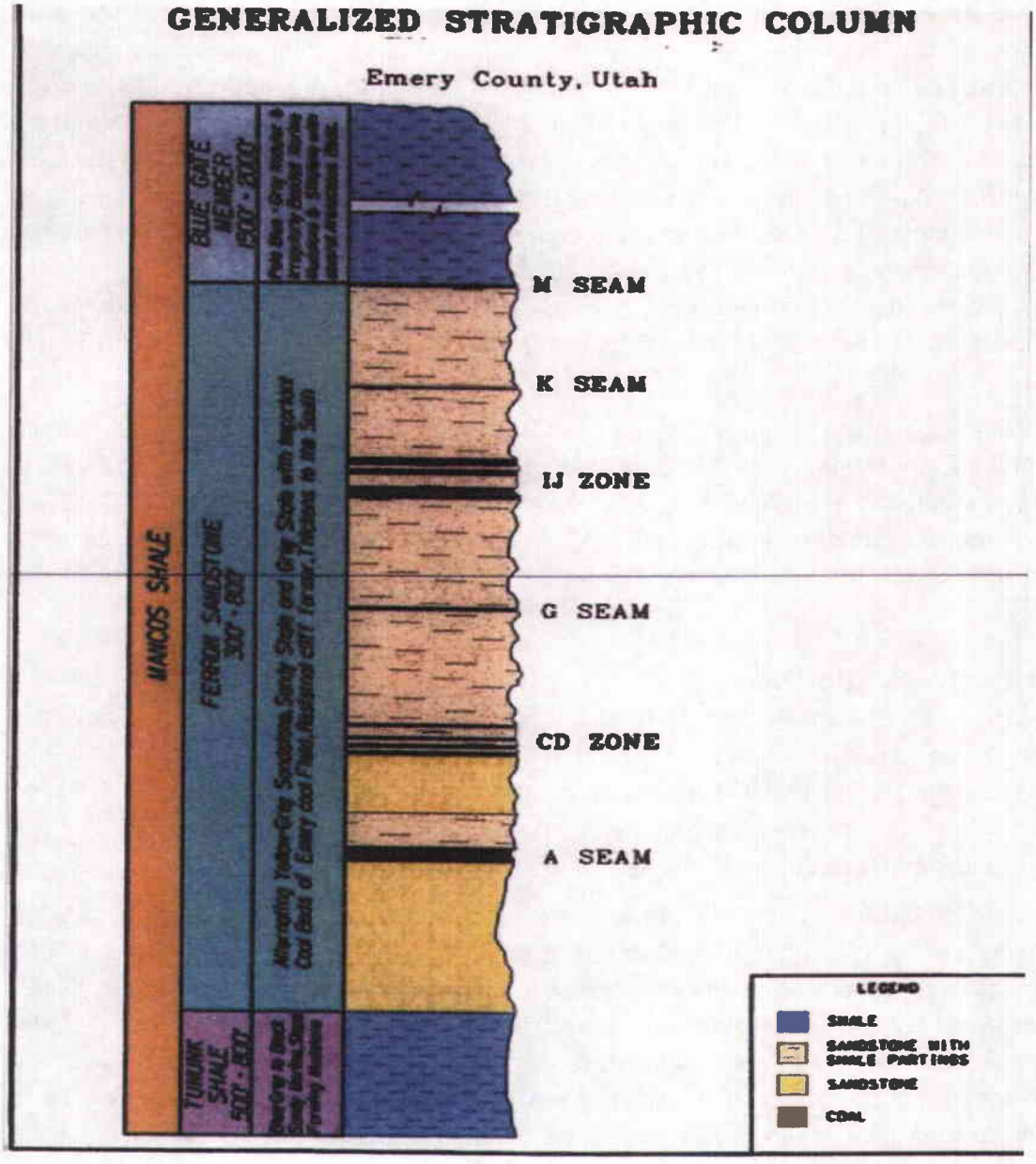
FIGURE 3
SITE MAP

jbr environmental consultants, inc.

DESIGN BY	DRAWN BY	SCALE	DATE DRAWN	LAST REVISION DATE
KK	CP	1:6000	12/18/08	01/05/09

drawings\Consol Miller Canyon\Fig3 Site Map.dwg

Coal reserves are found within the Ferron Sandstone, a sequence of sandstone, siltstone, shale and coal that outcrop along the steep cliffs of Muddy Creek near the eastern boundary of the Tract. The Lower Ferron consists of shelf sandstone deposits, while the Upper Ferron consists of deltaic deposits. Although six coal seams have been identified as reaching economic thickness locally within the Ferron, only the I seam is considered underground mineable in the immediate area of the Tract. The I seam averages about 13 feet in thickness, within the mineable portions of the Tract. Oxidation of the I seam caused by past lightning-caused coal burns renders the eastern portion of the Tract unmineable.



All mining is conducted utilizing continuous miner sections, for advance and retreat, together with shuttle cars and belt haulage. Advance mining within the Tract will take an average of eight feet of coal, leaving two feet of floor coal to maintain stable floor conditions. When retreat mining, miner units will ramp up and down within the pillars to recover as much of the full seam as possible. A total recovery of 50 to 65 percent is typically achieved. The time frame anticipated to complete the coal recovery of both the federal and fee coal associated with the 00 North Panel is approximately one year.

The Miller Canyon County Road (County Road 912) extends through the Tract, near the eastern extent of the mineable portion of the reserve. The road is a designated emergency vehicle route for I-70. It is assumed full extraction mining will be conducted under this road and the area will be subsided in accordance with the lease document. The leasing action will include mitigation measures such as requiring Consol to consult with the County on alternative routes to divert traffic while the road is subsiding and prior to final road repair. If it is determined, based on the economics of the current coal market conditions, that it is not economically feasible to mine the coal under this road, Consol will leave pillars in place under the road and will ensure the entries are stable. Comprehensive engineering and technical documentation has been prepared to analyze the undermining of this road (Consolidation Coal Company 2008b, 2008c). The lease document will include specific details on how the mining will be conducted under this road. Consol has an agreement with Emery County that addresses interim and final road repair, should any be required.

The applicant will maintain the current standard of Best Management Practices (BMPs) that are in place at the Emery Mine. There will be a strict adherence to the SWPPP and other BMPs to minimize impacts to the environment. Consol will also amend its MRP as required by UDOGM; this permit requires strict adherence to UDOGM's environmental protection measures (e.g., UDOGM 2005).

2.3 Alternative B – No Action

In accordance with BLM guidelines (H-1790-1, Chapter V), this EA evaluates the No Action Alternative. The objective of the No Action Alternative is to describe the environmental consequences that would result if the need for the project was not met. The No Action Alternative forms the baseline environmental data from which the impacts of all other alternatives can be measured.

The selection of the No Action Alternative would be inconsistent with the BLM mission of multiple uses and the BLM policy of making public lands available for a variety of uses as long as those uses are conducted in an environmentally sound manner. Also, selection of this alternative would not allow for the maximum recovery of the coal resources by Consol. Under Alternative B, the Tract would not be offered for leasing at this time. This tract would remain unmined, but current operations at the Emery Mine would continue for approximately five more years until existing coal reserves are exhausted. Consol would not extend its Emery Mine

operations an additional four to five months and would not extract the estimated 444,000 recoverable tons of coal and would not submit to BLM the associated lease bonus payment and 8 percent production royalty.

2.4 Alternatives Considered, but Eliminated from Further Analysis

Three other alternatives were considered for analysis in this EA, but are not being carried forward for further analysis because they were determined to be not viable, as outlined below.

Addition of Mining Area to North

Consol considered mining the Tract as well as additional areas to the north of the Tract. The mining method would be consistent with Alternative A, but the area mined would be larger. As with Alternative A, no new surface facilities or surface disturbing activities would be required. Available drill hole information indicates that the coal reserves north of the Tract were less than nine feet thick. To utilize continuous miner sections as Consol proposes to use, the coal seam must be a minimum of nine feet thick. Thus, this Alternative was eliminated based on the inability to efficiently mine the additional area to the north of the Tract and will not be evaluated further in this EA.

Room & Pillar, Without Retreat Mining

Consol also considered -- but eliminated -- room and pillar mining, without removing additional coal through retreat mining. Although this mining method would reduce or eliminate subsidence and subsidence-related impacts, it would result in less than the maximum recovery of coal reserves, which would not be in the best interests of Consol or the BLM. Thus, this alternative will not be evaluated further in this EA.

Mine the Entire 120-acre Miller Canyon Tract

The consideration of mining and subsiding the entire 120-acre Miller Canyon Tract was proposed for purposes of analyzing the potential effects to the entire Tract. However, according to extensive drilling data, coal in the southeast corner of the Tract is burned, and therefore oxidized so as to be not commercially acceptable. Therefore, the coal resource in this area, although present, is already depleted. Mining this burned coal serves no purpose and is economically impractical, and therefore further consideration of this alternative is dismissed.

3 AFFECTED ENVIRONMENT

3.1 Introduction

This section describes the resources in the study area, as well as any effects of the alternatives on those resources. When necessary, mitigation measures are also proposed to avoid, reduce, minimize, or compensate for any significant effects.

3.2 General Setting

The Emery Mine is located in south-central Utah. The general area is classified climatically as a middle latitude dry climatic area or a highland continental desert and is semiarid (Western Regional Climate Center 2008). The average annual temperature is 46°F and the average annual precipitation is 7.6 inches. Aridity is due to the Tract's location within the rain shadow of the Wasatch Plateau to the west. There are approximately 130 frost-free days annually.

The Tract is about three miles south of the town of Emery and about seven miles southwest of the town of Moore. For a rural county, Emery County has a high standard of living and solid tax base that comes from an economy based on coal extraction, specifically high-paying jobs associated with coal mining and electrical power generation (Emery County 1999). The 8% production royalty on federal coal is split 50/50 with the state. The county in which the coal is mined receives most of the states share of this royalty; the same split is used with the bonus payment.

The Tract is located within the 1,590 square mile area that comprises the Muddy Creek drainage basin. Muddy Creek flows southwest to eventually converge with the Fremont River, a tributary to the Dirty Devil River that ultimately flows into the Colorado River. Miller Canyon, a tributary to Muddy Creek, is situated within the eastern portion of the Tract.

Surface elevations of the Tract range from approximately 6,080 feet to 6,160 feet above mean sea level. Topography of the Tract is generally flat and is transected near the center by the north-south trending Miller Canyon. Land use has been designated by BLM as multiple use and is currently used for range for domestic livestock and wildlife species.

Vegetation within the Tract is dominated by salt desert plant communities such as shadscale (*Atriplex confertifolia*) and greasewood (*Sarcobatus vermiculatus*), and also contains small, localized areas of sagebrush, saltgrass and other bottomland species where irrigation and natural drainage water collects. Open stands of pinyon pine (*Pinus edulis*) and Utah juniper (*Juniperus osteosperma*) occur east of the Tract on sandstone outcrops and along escarpments adjacent to Muddy Creek.

3.3 Critical Elements of the Human Environment and Other Resources Brought Forward for Analysis

The following resources were identified above in **Section 1.7** as having the potential to be affected by the Project.

3.3.1 Water Resources

The Tract is bisected by the upper reaches of Miller Canyon (**Figure 4**). Miller Canyon joins Muddy Creek about one mile downstream of the Tract. Though most of the Tract is drained by Miller Canyon, runoff from the western part flows toward Christiansen Wash, which is also tributary to Muddy Creek via Quitchupah Creek. Muddy Creek and the Fremont River combine to form the Dirty Devil River before it joins the Colorado River.

Along a several-mile reach of Muddy Creek, beginning at the Emery Canal diversion (which often completely dewaters the channel) located about 15 miles northwest of the Tract, continuing downstream to include the reach of stream just east of the Tract, stream flows are generally supported by seepage and irrigation returns (Mundorff 1979). Within this reach of Muddy Creek, total dissolved solids (TDS) concentrations markedly increase. For example, TDS in samples collected by the US Geological Survey (USGS) during the 2005 and 2006 water years were consistently below 300 mg/L at the USGS Muddy Creek station upstream of Emery near the canal diversion, but were as high as 3,714 mg/L in Muddy Creek just below Miller Creek (USGS 2008). The increase is due to diversion of good quality water into the Emery Canal, interaction with the soluble marine deposits associated with Mancos Shale Formation outcrops, and contribution of irrigation-affected seepage and return flow. Miller Canyon itself conveys irrigation return flow, runoff from storms and snow melt, and discharge from a small spring. Each of these sources is discussed in more detail below.

Within the reach of Miller Canyon that flows through the Tract, irrigation return flow is seasonal, but of sufficient duration and volume to support a riparian corridor and to provide water for downstream stock uses. It appears to be the largest sustained contributor to Miller Canyon flow: a site visit on April 24, 2008, prior to the start of irrigation, documented an absence of stream flow in Miller Canyon upstream of contributions from a small spring (less than one gallon per minute) near the downstream end of the Tract; a repeat visit on June 4 documented irrigation flows (in excess of 100 gallons per minute) throughout the previously dry reach. Further, field notes from Consol personnel, who routinely visit the area to monitor flows at the spring, often indicate that the presence of irrigation water hinders their ability to measure spring discharge (personal communication, Peter Behling, Consol, April 28, 2008).

While the Emery area has been flood-irrigated for more than 100 years, the practice is likely to be modified in the near future, and this modification may have a direct bearing on future flows in Miller Canyon (unrelated to Consol's plan to mine the Tract). The Tract is within a larger area established by the USDA Natural Resource Conservation Service (NRCS) as the Muddy Creek Unit of the Colorado River Salinity Control Program. As with other salinity control units, this area was determined to be an area where salt load reduction was potentially economical. In October 2004, the NRCS (2004) finalized a plan to construct a new irrigation delivery system and implement an irrigation conversion project (from flood to sprinkler) on the Muddy Creek

Unit. Once implemented, this project will result in more efficient water use, which in turn tends to improve water quality by reducing dissolved salts. Irrigation conversion also generally reduces deep percolation, seepage, and excess water in return ditches. Once implemented on the fields upstream of the Tract, stream flows through Miller Canyon are likely to diminish. Those reduced flows, in turn, may result in a diminished riparian corridor and associated habitat. In fact, the NRCS's EA (NRCS 2004) recognizes that at least some of the seeps, wetlands, and riparian areas that have been artificially created over many years of inefficient irrigation practices in the Muddy Creek area are likely to be negatively impacted by the salinity control project.

Runoff from thunderstorms and seasonal snowmelt is another source that contributes stream flow to Miller Canyon. At Muddy Creek near I-70, the USGS (2008) attributed more than twice the amount of snowmelt runoff as compared to direct runoff during the 2005-2006 water years, but also notes the large temporal and spatial variability of flows in the Muddy Creek Basin. Snowmelt in Miller Canyon would likely peak in May or early June, and would typically contain very few dissolved solids. Late summer or fall thunderstorms produce most of the direct runoff, and this source is – by nature – infrequent and irregular. Channel morphology in Miller Canyon does not suggest that severe flash floods are common. As with most streams in the area, when the flow is comprised of high-intensity runoff from thunderstorms, sediment concentrations in Miller Canyon are likely to be elevated, and TDS concentrations are likely to be higher than during snowmelt-dominated flow events.

Due to a small, currently unmaintained earthen dike across the Miller Canyon channel at the upstream end of the Tract (**Figure 4**), both irrigation water and runoff are at least partially impounded. During the previously mentioned June 2008 site visit, seepage was occurring beneath the dam, and significant piping and interception of flows was occurring immediately downstream of it (which appears to be related to bedrock joints or fissures as the intercepted flows were observed to resurface well downstream of the dam). Several smaller impoundments have been excavated just upstream of the dam, within and north of the Tract on land owned by Consol but leased to an irrigator. These impoundments were apparently constructed to compensate for the dam's only partially functional ability to store water. The stored water is apparently used to supply drinking water for the lessee's livestock.

As mentioned above, a small spring discharges groundwater along the west bank of Miller Canyon near the downstream Tract boundary (**Figure 4**). This spring is not documented on USGS mapping or in other published sources, but was identified a number of years ago in association with the Emery Mine's baseline data gathering. Named Christiansen Spring (or SP-15), Consol monitors this source quarterly. According to Consol's MRP (Consolidation Coal Company 2008a), the spring discharges from the upper zone of the Ferron Sandstone Member of the Mancos Shale. Consol has a water right (#94-92) that was originally associated with this spring, and which now includes stockwatering rights for a reach upstream of the spring.

Downstream of the spring and the Tract, continuing through Miller Canyon to its confluence with Muddy Creek, BLM has an in-stream point-to-point water right (#94-1716) for stock watering

and livestock uses (**Figure 3**). As with the upstream reach of Miller Canyon, flows in this segment of the canyon are most likely supported largely by irrigation return flows.

The Ferron Sandstone is considered to be the primary bedrock aquifer within the general area encompassing the Tract. Located between the more impermeable shales of the Blue Gate (overlying) and the Tununk (underlying) members of the Mancos Shale, the aquifer associated with the Ferron Sandstone is commonly divided into a lower, middle, and an upper aquifer unit. The minable coal seam is located between the middle and upper divisions. The Emery Mine intercepts groundwater from this aquifer, and continually discharges the majority of the intercepted water to Quitchupah Creek. In 2006, the mine discharged this water at an average rate of about 527 gallons per minute; its TDS averaged approximately 3,480 mg/L (EarthFax Engineering, Inc., 2008). The discharge is permitted by the Utah Division of Water Quality (UDWQ) under the Utah Pollutant Discharge Elimination System (UPDES) program. Consol owns several water rights for groundwater, and uses this water for industrial and agricultural purposes.

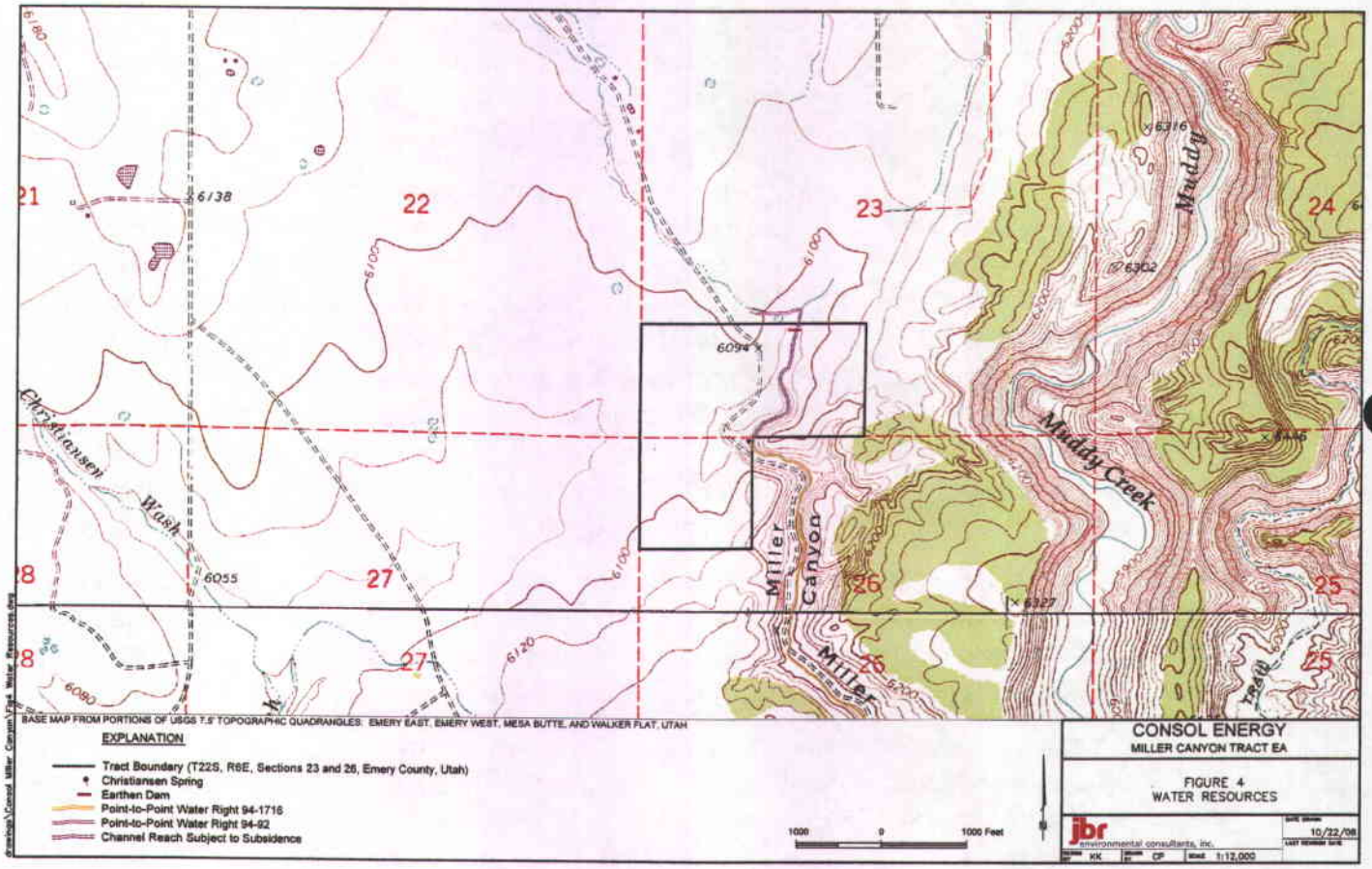
The Ferron Sandstone aquifer is primarily recharged from the high-elevation Wasatch Plateau to the west, and is under artesian pressure in the vicinity of the Emery Mine. Within the Tract, the Ferron Sandstone is the uppermost bedrock unit, and it is exposed as outcrop along portions of Miller Canyon, including at the location of the above-described spring. Generally though, within and near the outcrop area the Ferron is not saturated. By intercepting and continually discharging the intercepted water, mining has lowered the potentiometric surface of the Ferron, (primarily the upper Ferron zone and to a lesser extent the middle and lower zones) (Consolidation Coal Company 2008b). Once mining ceases, the trough of depression caused by past and currently approved mining activities will gradually diminish and pre-mining groundwater levels will eventually be approximately reestablished.

The water quality of the Ferron varies with depth and with distance down gradient from the recharge area. The TDS concentration of groundwater in the upper Ferron Sandstone averages about 1,600 mg/L, though in the vicinity of the Emery Mine is locally higher, likely due to interaction between the Ferron and the overlying shales.

Neither the surface- nor groundwater resources in the vicinity of the Tract supply public or private drinking water systems. This is largely due to a lack of need in this sparsely populated area, but in part is due to high TDS concentrations.

3.3.2 Farmlands (Prime and Unique)

The Natural Resource Conservation Service (NRCS) conducted an assessment of prime farmlands within the Tract (Fish 2008). The NRCS assessment determined that soils identified as soil mapping unit BIB and irrigated, meet the criteria for prime farmlands. Presently 1.7 acres of soil map unit BIB within the Tract are being irrigated. An additional 7.4 acres of soil map unit BIB show evidence of having been farmed and possibly irrigated at some time in the past, but not farmed or irrigated at this time (refer to **Figure 5** and **Table 3-1**).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6200
Christiansen Wash
Miller Canyon
Muddy
Muddy Creek
Miller
BASE MAP FROM PORTIONS OF USGS 7.5' TOPOGRAPHIC QUADRANGLES: EMERY EAST, EMERY WEST, MESA BUTTE, AND WALKER FLAT, UTAH
EXPLANATION
Tract Boundary (T22S, R6E, Sections 23 and 26, Emery County, Utah)
Christiansen Spring
Earthen Dam
Point-to-Point Water Right 94-1716
Point-to-Point Water Right 94-92
Channel Reach Subject to Subsidence
1000 0 1000 Feet
CONSOL ENERGY
MILLER CANYON TRACT EA
FIGURE 4
WATER RESOURCES
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drawings\Consol Miller Canyon\Fig4 Water Resources.dwg

Field inspection of the Tract determined that 0.3 acres of soil map unit PeC2 is currently being farmed and irrigated; refer to **Table 3-1** below. This small piece of irrigated PeC2 is upslope of the 1.7 acres of BIB being irrigated, for a total of 2.0 acres under irrigation.

Historical evidence indicates that 3.4 acres of other soil map units have been farmed and possibly irrigated at some time. This includes: 1.1 acres of map unit Hs; 1.5 acres of map unit KIB; 0.4 acres of map unit PCE2; and 0.4 acres of map unit PeC2.

Table 3-1. Areas that are either presently farmed and irrigated or were historically farmed.

Map Unit Symbol	Map Unit Name	Historically Farmed, but not Presently Farmed	Presently Farmed and Irrigated
		Acres	Acres
BIB	Billings silty clay loam, 1 to 3 percent slopes	7.4	1.7
Hs	Hunting loam, moderately saline, 1 to 3 percent slopes	1.1	
KIB	Killpack clay loam, 1 to 3 percent slopes	1.5	
PCE2	Persayo-Chipeta association, 3 to 20 percent slopes	0.4	
PeC2	Penner loam, 3 to 6 percent slopes	0.4	0.3
Total		**10.8**	**2.0**

Hydric Soil Conditions

Hunting and Rafael soil series have hydric soil conditions, but are of limited extent within the Tract. Hunting soils were mapped at the southwest end of the area identified as previously farmed (map unit Hs, 1.1 acres). The hydric conditions described by the NRCS in the Hunting soils were likely the result of irrigation when the adjacent soils were farmed; these soils may not have hydric conditions at the present time. Rafael soils were mapped along Miller Canyon Creek (map unit Ra, 7.1 acres). The Ra map unit delineation is larger than the actual area of Rafael soils and includes rock outcrop cliffs, shallow soils on structural benches above the creek, and the paved roadway.

Soil Erosion Potential

The dominant soil map units in the Tract (NRCS 2007) are: Hideout-Gerst-Anasazi association, 3 to 30 percent slopes (254); Persayo-Chipeta association, 3 to 20 percent slopes (PCE2); and Molen-Lazear-Gerst complex, 2 to 8 percent slopes (SNC). The other nine soil map units comprise less than ten percent of the Tract, each.

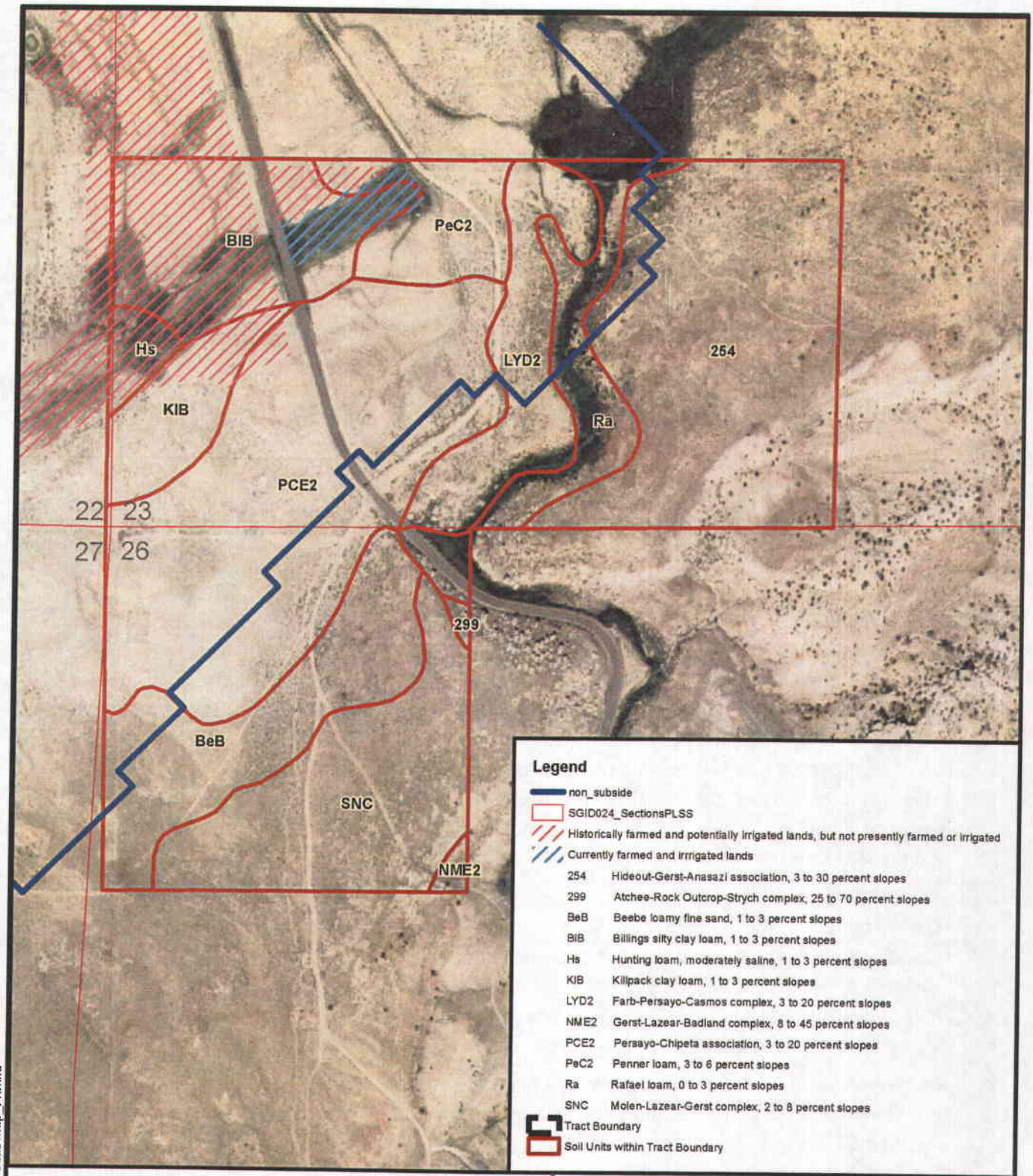
Table 3-2 contains the soil erosion potential ratings by soil map unit (NRCS 2007). Six of the twelve soil map units have K factors by the NRCS estimated that are within UDOGM's "Good" category; one is in the "Fair" category; and five are in the "Poor" category (UDOGM 2005). Soil map units that are within the UDOGM "Poor" category are susceptible to sheet and rill erosion (NRCS 2007).

Soil map units LYD2, NME2, PCE2, and Ra have a high runoff potential based on the soil hydrologic group (NRCS 2007).

Table 3-2. Soil erosion factors determined by soil map unit (NRCS 2007).

Map Unit Symbol	K Factor[1]	K Factor Suitability[2]	Wind Erodibility Index Group[3]	Wind Erodibility Index Rating[4]	Hydrologic Soil Group[5]
254	0.15	Good	5	56	D
299	0.10	Good	6	48	D
BeB	0.43	Poor	3	86	B
BIB	0.37	Fair	4L	86	B
Hs	0.43	Poor	4L	86	C
KIB	0.43	Poor	4L	86	C
LYD2	0.15	Good	5	56	D
NME2	0.10	Good	6	48	D
PCE2	0.49	Poor	4L	86	D
PeC2	0.49	Poor	4L	86	B
Ra	0.32	Good	8	0	D
SNC	0.28	Good	3	86	C

1. K factor value taken estimated by NRCS (NRCS 2007).
2. K factor suitability is based Utah DOGM's "Guidelines for Management of Topsoil and Overburden" (UDOGM 2005).
3. Wind erodibility index group range from 1 to 8 with group 1 being most susceptible to wind erosion and group 8 are the least susceptible (NRCS 2007).
4. Wind erodibility index rating is estimated in tons per acre per year (NRCS 2007).
5. Hydrologic soil group determined by NRCS are based on runoff potential. Group designation is based on the potential infiltration rate: Group A has a high infiltration rate and low runoff potential; Group B has a moderate infiltration rate; Group B has a slow infiltration rate; and Group D has a very slow infiltration rate and high runoff potential (NRCS 2007).



NAIP 2006 Quarter Quad imagery: Emery East SW
NRCS Soil Survey: ut623
PLSS: Salt Lake Meridan, Township 22 South, Range 6 East

500 0 500 Feet

N

CONSOL ENERGY
MILLER CANYON TRACT EA

FIGURE 5
SOILS MAP

jbr environmental consultants, Inc.

DESIGN BY	DRAWN BY	SCALE	DATE DRAWN	LAST REVISION DATE
RL	CP	1:6,000	7/21/08	-

drawings\Consol Miller Canyon\Fig5 Soils Map_r1.mxd

3.3.3 Livestock Grazing

Grazing rights have been granted for the grazing of cattle on both the Consol and BLM land holdings. Approximately 2.0 acres of the Tract is currently irrigated and farmed. Currently, less than 100 head of cattle graze the Tract as well as an adjacent area owned by Consol for two months out of the year (personal communication, Morris Sorenson, May 21, 2008). The BLM area is grazed for 45 days at a time. According to Mr. Sorenson (personal communication, Morris Sorenson, May 21, 2008) cattle are grazing unaffected on an area adjacent to the Tract that has experienced subsidence.

Approximately seven acres of the pasture lands contain evidence that they were once irrigated, but are currently being utilized as dry-land pastures (Mt. Nebo Scientific 2008a).

Regarding stock watering, impoundments in Miller Canyon to contain irrigation runoff and other surface water have been constructed to store water, which is used to supply drinking water for livestock. Consol has a water right (#94-92) to Christensen Spring that was originally associated with the spring, and which now includes stockwatering rights for a reach upstream of the spring (see **Section 3.3.1**). Refer to the water section (**3.3.1**) for information on the earthen dam within the Tract.

3.3.4 Wetlands/Riparian Zones

There are two areas that contain wetland or riparian characteristics within the Tract. The first area is within dry pastureland in the northwest corner of the Tract. This area is made up of saltgrass (*Distichlis spicata*) vegetation and some greasewood. The water that flows in this area is derived from both natural groundwater and surface water as well as runoff from irrigated pasture land upgradient. Regarding hydric soils, Hunting soils (hydric) were mapped at the southwest end of the area identified as previously farmed (map unit Hs, 1.1 acres; NRCS 2007). The hydric conditions described by the NRCS in the Hunting soils were likely the result of irrigation when the adjacent soils were farmed; these soils may not have Hydric conditions at the present time.

There is also a riparian community associated with Miller Canyon Creek through the east-central portion of the Tract that contains Tamarisk (*Tamarix* sp.), saltgrass, wiregrass (*Aristida stricta*), greasewood, rushes (*Juncus* spp.) and sedges (*Carex* spp.; Mt. Nebo Scientific 2008a). Rafael soils (hydric) were mapped along Miller Canyon Creek (map unit Ra, 7.1 acres). The Ra map unit delineation is larger than the actual area of Rafael soils and includes rock outcrop cliffs, shallow soils on structural benches above the creek, and the paved roadway.

Both riparian/wetland areas are currently enlarged by many years of inefficient (flood) irrigation practices in the Muddy Creek area and thus in part have been artificially created as flooding has augmented the natural hydrology and drainage of Miller Canyon (NRCS 2004). Regardless of the proposed action these riparian areas are expected to diminish as the planned sprinkler irrigation system replaces the current regime (NRCS 2004).

3.3.5 Fish and Wildlife, including special status species and migratory birds

Wildlife studies completed within and adjacent to the Tract as part of the larger Emery Mine and Hidden Valley Mine permit applications identified the presence of mule deer, cottontail, jackrabbit, squirrel, chipmunk, mice, vole, rat, fox, porcupine, coyote, weasel, skunk, badger and bobcat in the area. Available data from the Utah Division of Wildlife Resources indicates the Miller Tract is not crucial or substantial habitat for any big game animals (i.e., mule deer, rocky mountain elk, pronghorn, or rocky mountain bighorn sheep). Regarding fish, no perennial drainages occur within the Tract, as the Miller Canyon Creek is intermittent. Water flow down Miller Canyon is generally not sufficient to support fish and flooding does not occur regularly enough to provide a feasible connection to fisheries in other waterways such as Muddy Creek.

Sensitive species

Two sensitive species were identified within the Tract during general wildlife surveys: burrowing owl and white-tailed prairie dog. These species are described below. Information on dedicated surveys was taken directly from field survey reports (Mt. Nebo Scientific 2008b for burrowing owl; Mt. Nebo Scientific 2008c for white-tailed prairie dog).

Burrowing owls (*Athene cunicularia*) are listed on Utah's Sensitive Species list as a species of concern. Burrowing owls can be found in annual and perennial grasslands as well as deserts and shrublands such as those areas near the Emery Mine site. In the salt deserts of Utah they are most often associated with prairie-dog towns where they use their burrows for protection, shelter and nesting. They typically prefer areas where the vegetative canopy cover is less than 30 percent. Surveys for burrowing owls were conducted on one day from one hour before until two hours after sunrise (or from 6 am to 9 am), and on the subsequent day from two hours before until one hour after sunset (or from 6 pm to 9 pm). One burrowing owl was observed during the evening. The owl was seen exiting one burrow within one of the major prairie-dog colonies located within the surface boundaries of the Miller Tract of the Emery Mine.

White-tailed prairie dogs (*Cynomys leucurus*) are listed on Utah's Sensitive Species list as a species of concern. The white-tailed prairie dog is one of three prairie dog species found in Utah, and similar to other prairie dogs, this species forms colonies and spends much of its time in underground burrows. Utah prairie dogs often hibernate during the winter and breed in the spring. Young prairie dogs can be seen above ground in early June. The prairie dog diets consist mainly of grasses and bulbs (UNHP 2008). Once white-tailed prairie dogs were confirmed within the Project Area, a survey was conducted by setting up stations near the colonies to allow the use of binoculars and spotting scopes. Surveys were conducted in the morning and evening of 2 June 2008. The field survey verified that white-tailed prairie-dogs were present, active, relatively abundant and reproducing in Miller Creek Tract colonies. Two towns (burrow clusters) were observed in Section 23, on the west side of Miller Canyon road, each of which supported approximately 30 burrows, half of which were active. Scattered burrows were also present in other areas (outside the main towns) throughout the Tract. On 2 June 2008, 10-28 white-tailed prairie dogs of varying ages were observed active on the surface.

Migratory birds

It is possible that migratory birds may use the riparian or shrubland areas within or near the Tract for nesting. During visits to the Tract in April of 2008, no migratory birds were noted in the area and the Tract generally provides only marginally suitable habitat. If migratory birds used the Tract area, they would most likely occur within the riparian corridor in Miller Canyon. Raptor studies at the Emery Mine indicate a low likelihood for raptor presence within the Tract. A 2007 survey conducted by the Utah Department of Natural Resources (UDNR) identified a Golden Eagle nest within one mile of the Tract (UDNR 2007). At the time of the survey the nest was tended, but did not have eggs or young. No other raptor nests were identified on or within a mile radius of the Tract.

4 ENVIRONMENTAL IMPACTS

4.1 Introduction

This EA must identify the known and predicted effects that are related to the issues (40 CFR 1500.4(c), 40 CFR 1500.4 (g), 40 CFR 1500.5(d), and 40 CFR 1502.16). An issue describes an environmental problem or relation between a resource and an action. An effects analysis predicts the degree to which the resource would be affected upon implementation of an action (BLM 2008b). This chapter will analyze relevant short- and long-term effects as they relate to the proposed action. To further explain how resources will be affected by the implementation of the proposed project the focus of the discussion of effects will be on direct and indirect impacts; context and intensity; and duration.

Because the Project is a continuation of the existing underground mining operation, few issues and resources will be analyzed in this chapter. No new areas of surface disturbance are planned.

4.2 Direct/Indirect Impacts

EAs must analyze and describe the direct effects and indirect effects of the proposed action and the alternatives on the quality of the human environment (40 CFR 1508.8). Direct effects are those effects that are "caused by the proposed action and occur at the same time and place" (40 CFR 1508.8(a)). Indirect effects are effects caused by the proposed action, but occuring "later in time or farther removed in distance, but are still reasonably foreseeable" (40 CFR 1508.8(b)).

4.2.1 Alternative A - Proposed Action

4.2.1.1 Water Resources

No surface disturbances (other than indirect subsidence-caused settling) would occur under the proposed action, thus the accelerated runoff and erosion typical of disturbed areas would not occur. However, within the 55 acres of the Tract where full extraction would occur, planned subsidence may locally alter drainage patterns through slight but non-uniform settling and development of tension cracks. This could change infiltration, ponding, erosion/deposition, and runoff characteristics on a very small and local scale but would not be expected to have off-site impacts or otherwise affect either the Miller Canyon or Christiansen Wash streamflow or sediment regimes. Over time, tension cracks would be likely to fill and seal, particularly in the areas where soils have substantial clay components and overly shale parent materials (soil mapping units PCE2 and NME2 – **Figure 5**). Similarly, as small depressions collect runoff, conveyed sediments would deposit and over time these depressions would fill, causing local topography to reach pre-subsidence uniformity.

Because the proposed action would simply be an extension of mining, there would be no change to the existing condition regarding other potential surface effects (off of the Tract) such

as those related to coal transport, hydrocarbon spillage, surface infrastructure, discharge of intercepted groundwater, etc. Consol would continue to monitor surface and groundwater impacts related to its existing operations to ensure that there are no material damages to the hydrologic balance as per the Emery Mine's already approved MRP.

As mining expands into the Tract, groundwater contained in the Ferron Sandstone would continue to be intercepted. Given the small area (55 acres) of undermining associated with the Tract, as compared to the past, current, and already approved mining, the additional quantity of intercepted groundwater associated with the Emery Mine is not expected to substantially change. Similarly, the discharge of that intercepted groundwater water to Quitchupah Creek would continue, as allowed by the current UPDES Permit, at similar rates and water quality as if the Tract were not mined. In addition, there would be no change in the consumptive use of this groundwater (due to entrainment in the coal, dust control in-mine and on the surface, and evaporative losses due to mine ventilation).

Under existing approvals that are irrespective of the proposed action being evaluated here, it has been predicted that Christiansen Spring (also known as SP-15) will be within the cone of depression due to mining and resultant dewatering of the upper Ferron Sandstone aquifer. Groundwater modeling presented in Consol's approved MRP (Consolidation Coal Company 2008) suggests that the potentiometric surface in the vicinity of the spring will temporarily decline about 24 feet; this decline can be expected to affect the discharge of Ferron Sandstone groundwater at Christiansen Spring. As overall premining groundwater levels reestablish after mining is complete, the spring can be expected to again discharge this groundwater. Mining the Tract would not alter either the diminishment or the reestablishment of the spring as it is already expected to occur under the existing mine plan.

Further, this spring is not within the footprint of the area that would be mined or subsided under the proposed action. As such, its physical setting would not be disturbed.

A reach of the Miller Canyon channel would be undermined and subsided as a result of the proposed action. The small earthen dam mentioned in **Section 3.1.1** is within this reach, as is the noted zone of piping and interception of stream flows. As was previously discussed, the dominant source for water stored in the dam and conveyed through Miller Canyon is excess irrigation water that is released under the current flood-irrigation system. As this part of the Tract is mined and subsided, ground movements could occur and it would be possible that the already-compromised dam could fail further, perhaps ceasing to have any impoundment capacity, and that the already occurring piping and interception of flows could be exacerbated.

Because the dam is located on ground that Consol owns, they would have several options: (1) reconstruct the dam at that location for the lessee's use, (2) construct another dam further upstream outside of the Tract, (3) enlarge the excavated impoundments located on their property north of the Tract for the lessee's use, or (4) forego the ability to impound water at this location. The fact that the flood irrigation system may soon be converted to a pressurized sprinkler irrigation system and the fact that this structure is not a State Engineer-permitted structure reduce the level of impact associated with the potential loss of the dam's functionality.

The proposed action's potential exacerbation of the piping and interception of flows that are already occurring within this reach of Miller Canyon would represent a greater concern. Once the channel subsides, the intercepted water may not be able to make its way back into the channel as it currently does. In addition to the physical alteration of the existing piping and joint network, the overall lowering of the channel bed through this reach would locally change the channel gradient. These combined effects could result in less water continuing downstream to lower Miller Canyon and Muddy Creek. Because most Miller Canyon discharge is related to irrigation, and comprised of flow that is regulated but not measured, quantification of this potential water loss is not possible. However, as noted, flows may diminish in Miller Canyon in the near future, irrespective of the proposed action, due to the irrigation system conversion. Any loss of water in Miller Canyon due to the proposed action may simply cause this change to occur sooner that it would otherwise occur. Regardless, the BLM's stockwatering right in lower Miller Canyon, which apparently depends in large part upon irrigation releases, may be affected.

The fate of any Miller Canyon flow that may be lost from the surface within the subsided area cannot be predicted with certainty. It may, as it does currently, move laterally down gradient and reappear in the stream channel downstream of the mined area. Alternatively, its movement may have a greater vertical component, and be conveyed into the mine via tension cracks and/or natural joints. If the latter, it would require handling and subsequent discharge to Quitchupah Creek through Consol's UPDES permit.

4.2.1.2 Farmlands (Prime and Unique)

No surface disturbances (other than indirect subsidence-caused settling) would occur under the Proposed Action, thus direct impacts to prime or unique farmland would not occur. However, within the 55 acres of the Tract where full extraction would occur, planned subsidence may locally affect surface soils through slight but non-uniform settling and development of tension cracks. Soil erosion has the potential for becoming accelerated in areas where surface runoff flows into the subsidence surface cracks. This accelerated soil erosion potential would have the greatest potential in soil map units with K-factors greater than 0.37 (BeB, Hs, KIB, PCE2, and PeC2) and could result in localized sheet and rill erosion. Soil map units BeB, HS, and KIB have slope ranges of 1 to 3 percent and PeC2 has a slope range of 3 to 6 percent which will reduce the chance of soil erosion. Map unit PCE2 has a slope range of 3 to 20 percent which increases the chance of soil erosion. However, over time, tension cracks would be likely to fill and seal, particularly in the areas where soils have substantial clay components and overly shale parent materials (soil mapping units PCE2 and NME2).

Coal mine subsidence could have an impact on flood irrigation of the area designated as Prime Farmland (Fish 2008). Mine subsidence would have less impact if the area was converted to sprinkler irrigation, which is being done on several of the adjacent farms.

4.2.1.3 Livestock Grazing

Within the existing, adjacent portions of the Emery Mine, there have been no impacts to cattle and no diminishing of grazing potential resulting from retreat mining in the subsided areas. Because the adjacent area is similar in topography and resources, it is reasonable to assume subsidence within the Tract would not adversely affect the future health of livestock grazing.

The only impacts to livestock would be with regard to subsidence and water sources. Subsidence could impact the existing livestock watering sources by cutting off water to lower Miller Canyon. The impact could limit watering options to the holders of grazing rights on both the Consol and BLM landholdings. The small earthen dam mentioned in **Section 3.3.1** is within this reach, as is the noted zone of piping and interception of stream flows. As was previously discussed, the dominant source for water stored in the dam and conveyed through Miller Canyon is excess irrigation water that is released under the current flood-irrigation system. As this part of the Tract is mined and subsided, it would be likely that the already-compromised dam would fail further, perhaps ceasing to have any impoundment capacity, and that the already occurring piping and interception of flows would be exacerbated.

4.2.1.4 Wetlands/Riparian Zone

A reach of the Miller Canyon channel would be undermined and subsided as a result of the proposed action. This would potentially exacerbate the piping and interception of flows that are already occurring within this reach of Miller Canyon. Once the channel subsides, the intercepted water may not be able to make its way back into the channel as it currently does, which could result in less water continuing downstream to lower Miller Canyon (see **Section 4.2.1.1**). This would reduce the water available for the current wetlands and riparian zone within the Tract and lead to these areas being reduced in size or eventually lost.

4.2.1.5 Fish and Wildlife species, including special status species and migratory birds

Underground coal extraction, and subsequent surface subsidence, is not expected to cause significant impacts to mammals or substantially affect essential habitat.

Impacts to prairie-dogs and burrowing owls may occur if subsidence occurs directly under colonies. Direct mortality is not expected; however, prairie dogs or burrowing owls present in areas where subsidence is occurring would be displaced to other burrows. If a large area becomes unsuitable, displacement may cause adverse reproductive effects in adjacent areas due to increased population densities. In general subsidence impacts (appearance of cracks up to several inches in width; see **Appendix B**) would occur fairly quickly after pillars are removed underground. If subsidence were to occur during prairie dog breeding or during burrowing owl nesting (March through June, for both species) adverse population impacts could occur. Young white-tailed prairie-dogs are not able to leave burrows for several months and may be directly impacted by falling into cracks. Likewise, fledgling burrowing owls may not be mobile for several weeks or months and could fall into cracks or be abandoned as adults vacate the burrow. Impacts to populations of sensitive species within the Tract could occur if subsidence occurred within burrow aggregations and during the time many (immobile) young were present.

Direct impacts to migratory birds would not occur. However, there may be a loss of potential riparian habitat in the future (indirect impact) if the water flow is diminished though Miller Canyon due to subsidence (see **Sections 4.2.1.3** and **4.2.1.1**).

4.2.1.6 Mitigation Measures

In the event of loss of the dam and the subsequent water storage capacity, the situation could be remedied in one of several ways. Because the dam is located on ground that Consol owns,

they would have several options: (1) reconstruct the dam at that location for the lessee's use, (2) construct another dam further upstream outside of the Tract, (3) enlarge the excavated impoundments located on their property north of the Tract for the lessee's use, or (4) forego the ability to impound water at this location. The fact that the flood irrigation system may soon be converted to a pressurized sprinkler irrigation system and the fact that this structure is not a State Engineer-permitted structure reduce the level of impact associated with the potential loss of the dam's functionality.

4.2.2 Alternative B - No Action

If the proposed project is rejected, there would be no resultant direct, indirect or cumulative impacts to the following:

- Air Quality
- ACECs
- Cultural Resources
- Environmental Justice
- Farmlands (Prime and Unique)
- Floodplains
- Invasive, Non-native Species
- Native American Religious Concerns
- Threatened, Endangered, or Candidate Plant and Animal Species
- Wastes (Hazardous or Solid)
- Water Quality
- Wetlands/Riparian Zones
- Wild and Scenic Rivers
- Wilderness
- Rangeland Health Standards
- Livestock Grazing
- Woodland/Forestry
- Vegetation and Fish and Wildlife Including Species Other than Candidate or Listed Species
- Soils
- Recreation
- Visual Resources

- Paleontology
- Lands/Access
- Fuels/Fire Management
- Socio-economics
- Wild Horses and Burros
- Wilderness Characteristics

If the Proposed Action (Alternative A) were rejected, the following potential impacts could occur.

4.2.2.1 Geology/Mineral Resources/Energy Production

The rejection of the proposed project would result in the loss of approximately 440,000 recoverable tons of coal. The selection of the No Action Alternative would be inconsistent with the BLM mission of multiple uses and the BLM policy of making public lands available for a variety of uses as long as those uses are conducted in an environmentally sound manner.

4.2.2.2 Socio-economics

If the proposed project is rejected, the life of the mining operation would not be extended. Consol would shut down the mine after the mining was complete per the original mining plan. In the present 2008 economy, if Consol is not able to move workers to other mining operations, jobs will be lost and workers would face a depleted job market. Because of the current downturn in the economy, the loss of any revenues would have an impact on the community of Emery as well as at the county level. Increases in unemployment benefits plus the loss of taxes would be felt even if the jobs loss at Consol were small. There would be a loss of the production royalty and bonus payment on federal coal that is split 50/50 with the state, and distributed to the county in which the coal is mined. All of these effects would occur under the Proposed Action as well as No Action, but would occur later in time, after the coal in the Tract is depleted.

In 2007, Emery County's decline in employment made the county the second worst performing labor market in the state (Utah Department of Workforce Statistics 2008). Sevier County has experienced an increase in unemployment, 3.9%, up from 2007's 2.8% (Economic Development Intelligence System 2008). Because the mining industry is a major contributor to the economy of both counties and 2007 saw a slump in mining employment opportunities, any additional layoffs would be deeply felt both at the local and the county levels.

4.3 Cumulative Impacts Analysis

Cumulative impacts are those impacts resulting from the incremental impact of an action when added to other past, present, or reasonably foreseeable actions regardless of what agency or person undertakes such other actions. The Cumulative Effects Area (CEA; see **Figure 6**) for this project was delineated as the two HUC 6 subwatersheds that intersect the Tract:

Christensen Wash-Quitchupah Creek (140700020106; about 19,500 acres) and Miller Canyon-Muddy Creek (140700020205; about 22,000 acres).

4.3.1 Past and Present Actions:

In addition to the underground coal mining occurring at the Emery Mine, adjacent to the Miller Tract, past or present actions in the CEA consist mainly of mining and agriculture.

There are no coal-fired power plants or active surface mines within the CEA, however there is one other underground coal mine besides Consol's active Emery Mine. The other underground mine in the CEA is the Sufco Mine, which occupies a portion of the northwestern corner of the CEA, mainly in Sevier County. It is currently owned by Arch Coal, and has been operating for more than 60 years. As with the Emery Mine, the Sufco Mine also intercepts groundwater and discharges it to the surface under a UPDES Permit. The Sufco Mine discharges into Quitchupah Creek, and flows enter the CEA from the west. Subsidence also occurs within the Sufco Mine area, although mostly outside of the CEA.

Agriculture within the CEA occurs in many areas of the valley, including the area adjacent to the Town of Emery, along Quitchupah Creek west of the Emery Mine, and to a much lesser extent along Muddy Creek near Interstate 70. Nearly the entire area between the Emery Mine and Emery town is irrigated and supports alfalfa. It is supported by stream flows diverted out of Muddy and Quitchupah creeks; agriculture is the predominant water use in the CEA. Inefficient flood irrigation has been practiced in this area for more than 100 years, and has resulted in artificially high water tables, poor drainage, and salt accumulations due in part to deep percolation (NRCS 2004).

4.3.2 Reasonably Foreseeable Action Scenario (RFAS)

The following RFAS identifies reasonably foreseeable future actions that would cumulatively affect the same resources in the cumulative impact area as the proposed action and alternatives.

As the Sufco Mine continues to operate, it is expected to continue discharging about four cubic feet per second (cfs) of intercepted groundwater to the North Fork of Quitchupah Creek. This discharge would continue to provide a significant portion of the stream flow within the CEA.

As described in Section 3.3.1, irrigation practices in the Emery and Quitchupah Creek areas are likely to be converted from flood methods to pressurized sprinkler methods in the near future. Soon after implementation, return flow contributions to surface streams, including Miller Canyon, would likely be reduced or in some areas eliminated; over the longer term, saline seepage and high water tables would likely decline.

4.3.3 Cumulative Impacts

There would be no cumulative impacts to grazing resources, wetland/riparian areas, or wildlife including special status species.

Surface water flow regimes and ground water elevations within the CEA would continue to be influenced by underground mine interception and discharge to the surface, and agriculture-related stream withdrawals and irrigation. Some of these influences result in gains to stream

channels (i.e. UPDES discharges) and some result in losses (i.e. irrigation diversions); similarly, groundwater elevations can be lowered due to mine dewatering and increased due to over-application during irrigation. If the potential impacts to surface and groundwater as described in Section 4.4.2.1 result from the proposed action, they would likely represent a negligible contribution to cumulative impacts over the long term. If subsidence results in the interception of irrigation return flows in Miller Canyon (a potential if mining occurs prior to irrigation conversion), there could be a net reduced flow through Miller Canyon and a net increased flow to Quitchupah Creek (because the intercepted water would be discharged through the Emery Mine UPDES outfall).

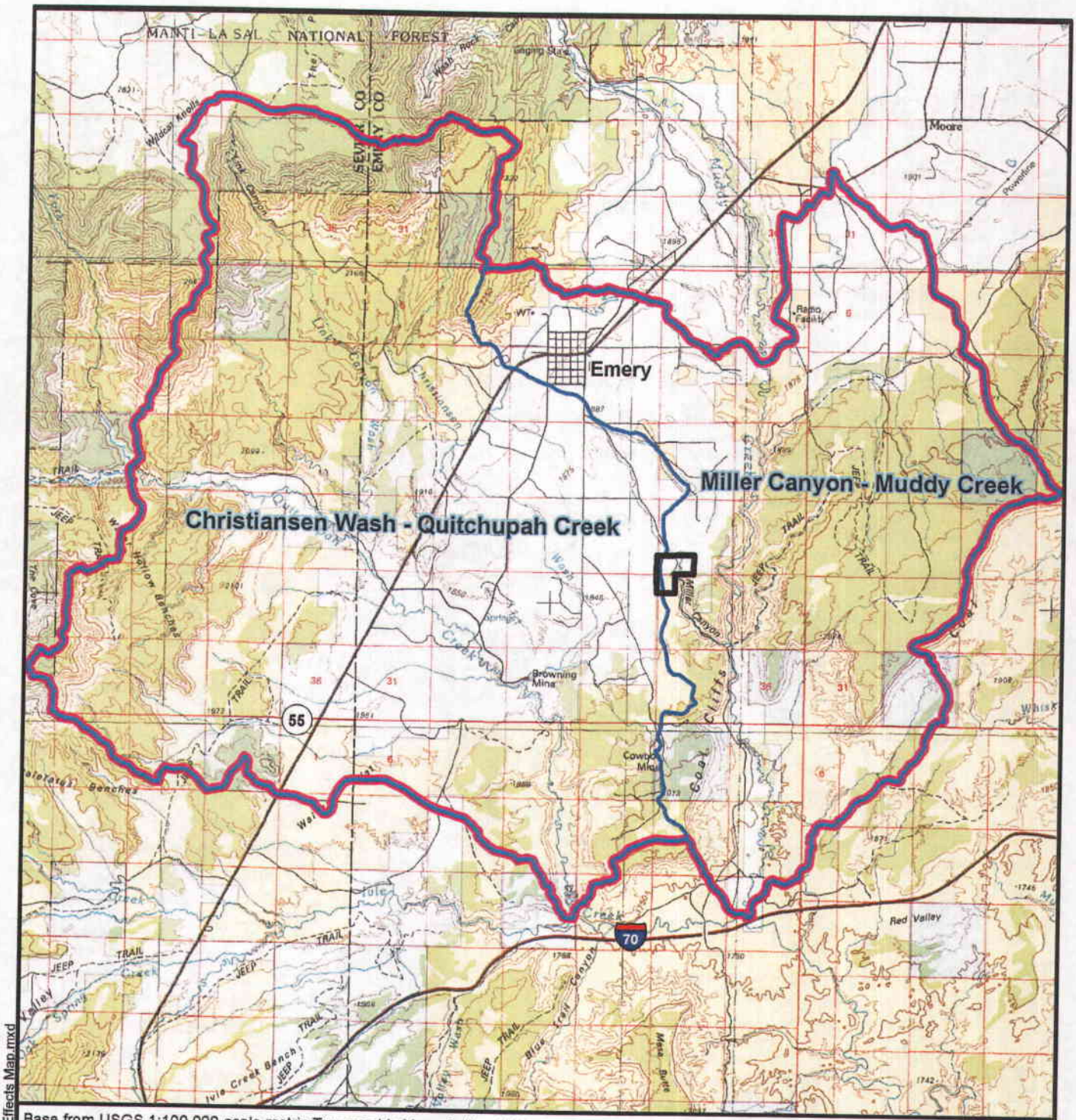

MANTI - LA SAL NATIONAL FOREST
SEVIER CO
EMERY CO
Moore
Emery
Miller Canyon - Muddy Creek
Christiansen Wash - Quitchupah Creek
Browning Mine
Cowboy Mine
Red Valley
55
70
Base from USGS 1:100,000-scale metric Topographic Map: Salina, Utah
Land Status and Watershed Data from http://agrc.its.state.ut.us/
Legend
Track Boundary
HUC 12 Watershed Boundary
Cumulative Effects Boundary
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FIGURE 6
Cumulative Effects Map
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5 CONSULTATION AND COORDINATION

5.1 Introduction

The issue identification section of **Chapter 1** identifies those issues analyzed in detail in **Chapter 4**. **Appendix A** provides the rationale for issues that were considered but not analyzed further. The issues were identified through the public and agency involvement process described in **Sections 5.2** and **5.3** as follows.

5.2 Persons, Groups, and Agencies Consulted

Table 5-1. List of all Persons, Agencies, and Organizations Consulted for Purposes of this EA.

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
U.S. Fish and Wildlife Service (USFWS)	Information on Consultation, under Section 7 of Endangered Species Act (16 USC 1531)	Consultation was deemed unnecessary because there are no Threatened or Endangered species or designated Critical Habitats within the Tract.
Utah State Historic Preservation Office (SHPO)	Consultation for undertakings, as required by the National Historic Preservation Act (NHPA) (16 USC 470)	This project should have no adverse effects upon cultural resources. Six eligible sites are located northwest of the coal burn line and should require periodic monitoring for subsidence impacts
List of tribes: Shoshone Paiute Navajo Ute Hopi Southern Ute Pueblo	Consultation as required by the American Indian Religious Freedom Act of 1978 (42 USC 1531) and NHPA (16 USC 1531)	The Tribe has not responded identifying any concerns as of this writing. Lack of response is interpreted by the BLM to indicate that the Tribe has no concerns relative to the proposed action.

5.3 Summary of Public Participation

During preparation of the EA, the public was notified of the proposed action by posting on the Utah Environmental Notification Bulletin Board (ENB) on October 15, 2008. The process used to involve the public included internet posting of the proposed project description.

5.4 List of Preparers

5.4.1 BLM

Name	Title	Responsible for the Following Section(s) of this document
Steve Rigby	Acting Assistant Field Manager Coal/Lead Mining Engineer	All
Mike Glasson	Geologist	Geology, Coal Resources, All
Jeffrey Brower	Hydrologist	Hydrology Resources
Ray Jenson	Rangeland Mngt Specialist (RMS)	Grazing Resources
Floyd Johnson	NEPA	NEPA
Mike Tweddell	Wild Horse RMS	Range
Blaine Miller	Archaeologist	Cultural Resources
Tom Gnojek	Outdoor Recreation Planner	Wilderness Resources
David Waller	Wildlife Biologist	Wildlife Resources
Wayne Ludington	Assistant Field Manager	Renewable Resources
Suzy Wiler	Physical Science Technician	Native American Consultation, Legal

5.4.2 Non-BLM

Name	Title	Responsible for the Following Section(s) of this Document
Linda Matthews	Project Manager	All sections; QC/QA
Karla Knoop	Hydrologist	Water Resources
Devetta Hill	Senior Ecologist	All sections
Laura Arneson	Environmental Analyst	Grazing, Riparian/Wetland, Wildlife
Robert Long	Soils Scientist	Soils, Prime & Unique Farmlands
Patrick Collins	Scientist	Vegetation, TES, Weeds

6 REFERENCES AND ACRONYMS

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6.2 List of Acronyms Used in this EA

ACEC	Areas of Critical Environmental Concern
BLM	Bureau of Land Management
BMP	Best Management Practice
CEA	Cumulative Effects Area
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DR	Decision Record
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act
FONSI	Finding of No Significant Impact
KRCRA	Known Recovery Coal Resource Area
LBA	Lease by Application
LMU	Land Management Unit
MLA	Mineral Leasing Act
MSHA	Mine Safety and Health Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OSM	Office of Surface Mining
RFAS	Reasonably Foreseeable Action Scenario
RMP	Resource Management Plan
ROD	Record of Decision
SHPO	State Historic Preservation Office
SITLA	School and Institutional Trust Lands Administration
SR	State Road
SWPPP	Storm Water Pollution Prevention Plan
TDS	Total Dissolved Solids
UDOGM	Utah Department of Oil, Gas, and Mining
UDPES	Utah Pollutant Discharge Elimination System
UDWQ	Utah Division of Water Quality
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

APPENDIX A

Interdisciplinary Team Analysis Record Checklist

INTERDISCIPLINARY TEAM ANALYSIS RECORD CHECKLIST

Project Title: Miller Canyon Tract LBA EA

NEPA Log Number: 070-2008-104

File/Serial Number:

Project Leader: Steve Rigby

DETERMINATION OF STAFF: (Choose one of the following abbreviated options for the left column)

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for significant impact analyzed in detail in the EA; or identified in a DNA as requiring further analysis

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section C of the DNA form.

Determination	Resource	Rationale for Determination*	Signature	Date
		CRITICAL ELEMENTS		
NI	Air Quality	No surface development. No impacts to ambient air quality or background noise. No increase in mine traffic.		01/27/09
NP	Areas of Critical Environmental Concern	No ACEC's in the Tract.		1/27/09
NI	Cultural Resources	**Class III Inventory completed of 120-acre Tract. Five NRHP eligible sites (no rock shelters) would be monitored during subsidence. There would be no surface development on the Tract.**		01/27/09
NI	Environmental Justice	No minority or low-income communities would be disproportionately affected by the Project.		01/28/09
NI	Farmlands (Prime or Unique)	There is one area identified with the potential to be prime farmland if the area is irrigated. The Project is within heavily grazed desert scrub. None of the surface area would be impacted by the proposed leasing or development of the Miller Canyon Tract. There would be no surface disturbance and subsidence impacts would be minimal.		01/27/09

Determination	Resource	Rationale for Determination*	Signature	Date
NI	Floodplains	Drainages in the Tract do not convey a large amount of seasonal runoff. Flooding from irrigation may increase flows in Miller Canyon within the Tract but there is no floodplain area that would be affected by the project.		01/27/09
NI	Invasive, Non-native Species	Field bindweed was observed within the Tract along the paved county road and salt cedar was observed in Miller Canyon. Because there will be no soil disturbance there would be no accidental spreading of invasive species.		1/28/09
NI	Native American Religious Concerns	There are no known interests or properties held in trust for Tribes by the United States government within the Tract.		1/27/09
NP	Threatened, Endangered or Candidate Plant Species	No threatened, endangered or candidate plant species are known to occur in the proposed Tract. Potential habitat exists within shadscale vegetation but this habitat would not be affected by the project because there would be no surface disturbance.		1/28/09
NP	Threatened, Endangered or Candidate Animal Species	No threatened, endangered, or candidate species nor their habitat exists within the project boundaries.		2009 Jan-28
NI	Wastes (hazardous or solid)	Any waste materials from the underground development of the Miller Canyon Tract would be handled appropriately, according to the existing MRP		01/27/09
PI	Water Quality (drinking/ground)	Water quality may be affected by underground mining.		01/27/09
PI	Wetlands/Riparian Zones	Subsidence may drain water from the riparian zone in Miller Canyon and elsewhere within the Tract.		1/28/09
NP	Wild and Scenic Rivers	There are no designated wild and scenic rivers in or near the Tract.		1/27/09
NP	Wilderness	No designated wilderness areas or WSAs occur within or adjacent to the Tract.		1/28/09
		OTHER RESOURCES / CONCERNS		
NI	Rangeland Health Standards and Guidelines	Allotments within the Tract meet RHS. There would be no surface disturbance thus RHS would be maintained.		1/27/09
PI	Livestock Grazing	Consol & BLM surface grazing rights are currently provided to Morris Sorenson. No surface development would occur on the Tract. Subsidence effects would not impact grazing. The only potential effect is to stock watering ponds.		1/27/09
NI	Vegetation including Special Status Plant Species other than FWS candidate or listed species	The Tract is within heavily grazed desert scrub. None of the vegetation would be impacted by the proposed leasing or development of the Miller Canyon Tract. There would be no surface disturbance and subsidence impacts would be minimal.		1/28/09
PI	Fish and Wildlife Including Special Status Species other than FWS	Wildlife habitats may be affected by subsidence impacts, including riparian habitat for migratory birds and sensitive burrowing animals (burrowing owl, white-tailed prairie dog).		2009 Jan-28

Determination	Resource	Rationale for Determination*	Signature	Date
	candidate or listed species e.g. Migratory birds.			
NI	Recreation	The project would not stop or change recreation opportunities or behavior within the Tract.		
NI	Paleontology	**There is potential for fossil recovery on the surface.**		
NI	Fuels / Fire Management	None of the surface area would be impacted by the proposed leasing or development of the Miller Canyon Tract. There would be no surface disturbance and subsidence impacts would be minimal.		1/28/09
NP	Wild Horses and Burros	No wild horses and burros were observed within the Tract. The area does have fencing which would limit grazing access. None of the surface area would be impacted by the proposed leasing or development of the Miller Canyon Tract. There would be no surface disturbance and subsidence impacts would be minimal.		1/27/09
NI	Wilderness characteristics	The Tract is lacking wilderness characteristics.		
NP	Other: Lands	**Access already exists to Lease.**		
	Other:			

FINAL REVIEW:

Reviewer Title	Signature	Date	Comments
NEPA / Environmental Coordinator		1/28/09	
Authorized Officer		1/28/09	

**Rationale for Determination is required for all "NIs" and "NPs." Write issue statements for "PIs"*

APPENDIX B

NRCS Correspondence and Information

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
240 West Highway 40 (333-4)
Roosevelt, UT 84066

June 2, 2008

Re: Emery Mine LBA – Miller Canyon Tract
Prime, State Important and Unique Farmland
South ½ of SW ¼, Sec 23, T. 22 S., R. 6 E., SLBM
North ¼ of NW ¼, Sec 26, T. 22 S., R. 6 E., SLBM

We have reviewed your request for a determination of prime, state important and unique farmlands. On the enclosed soils map, the area designated as soil survey mapping unit BlB and irrigated, meet the criteria for prime farmlands.

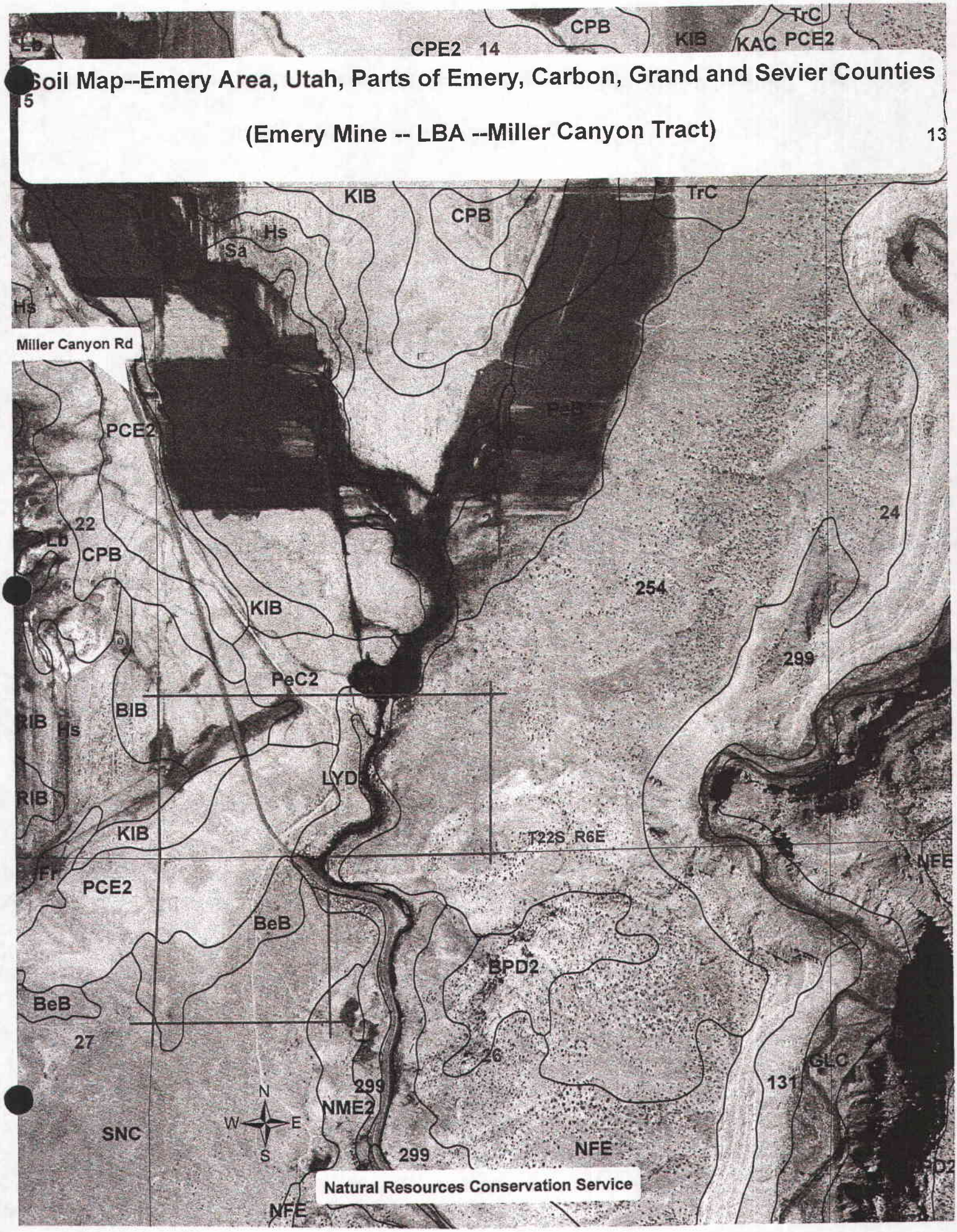
All other soils in the designated area on the enclosed soils map do not meet the criteria for prime or state important farmland because they have an aridic or torric moisture regime and do not have an established irrigated system of adequate quality or quantity. Emery County has not designated any areas as unique farmland or land of local importance.

I am enclosing copies of the soils map for the area and Form AD-1006 FARMLAND CONVERSION IMPACT RATING for your use.

Robert H. Fish
Area Resource Soil Scientist

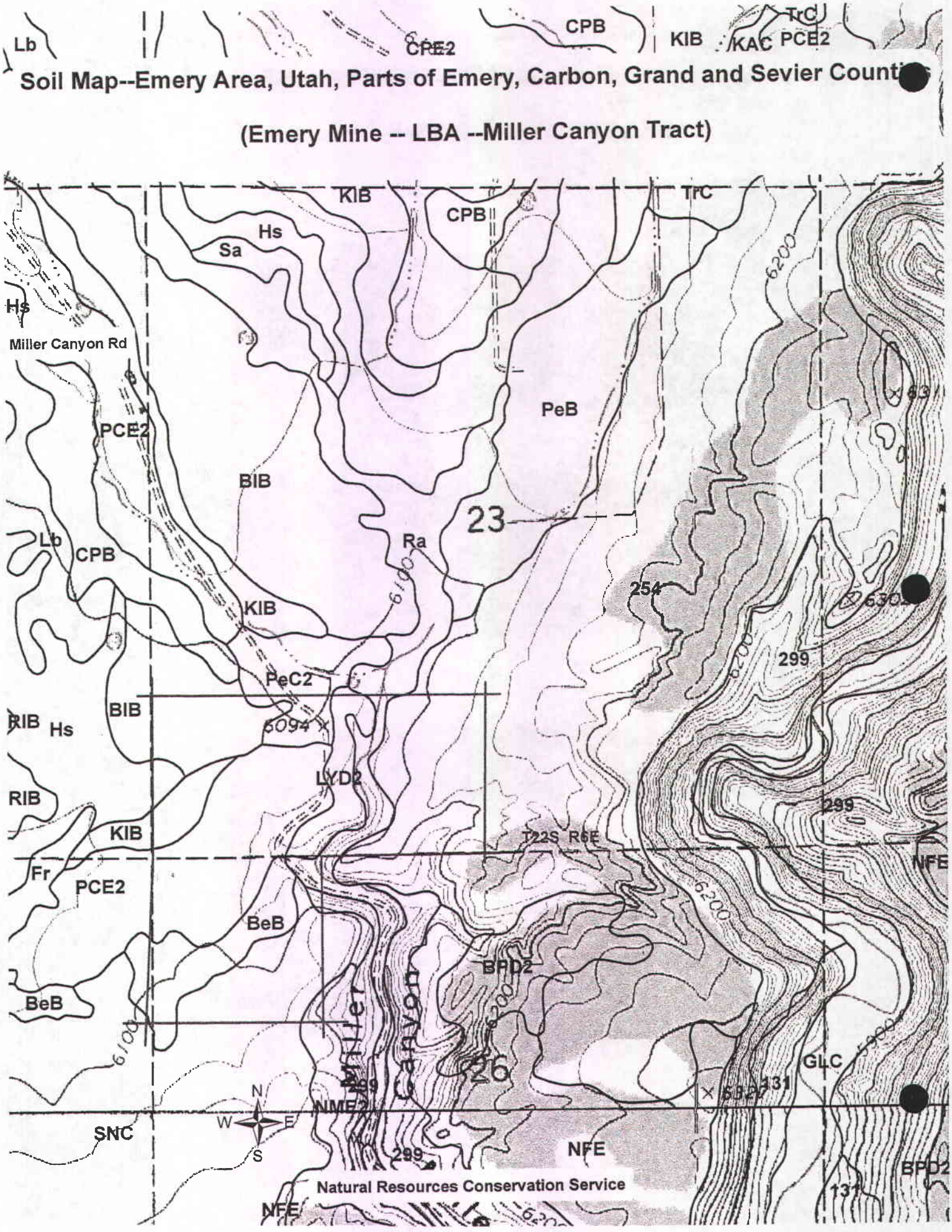
Enclosure

Cc: Wayne Greenhalgh, D.C., NRCS, Price, UT
Robert E. Long, Long Resource Consultants, Inc., Morgan, UT


Soil Map--Emery Area, Utah, Parts of Emery, Carbon, Grand and Sevier Counties
(Emery Mine -- LBA --Miller Canyon Tract)
Miller Canyon Rd
CPE2
CPB
KIB
TrC
KAC
PCE2
Hs
Sa
Lb
PeC2
BIB
LYD
BeB
BPD2
NME2
SNC
NFE
GLC
T22S R6E
22
24
254
299
27
26
131
N
W
E
S
Natural Resources Conservation Service

Soil Map--Emery Area, Utah, Parts of Emery, Carbon, Grand and Sevier Counties

(Emery Mine -- LBA --Miller Canyon Tract)



U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 5/29/08
Name Of Project Emery Mine LBA -- Miller Canyon Tract	Federal Agency Involved
Proposed Land Use	County And State Emery County, Utah
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 5/29/08

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).*	Yes	No	Acres Irrigated	Average Farm Size
	☑	☐	33,099	126

Major Crop(s)	Farmable Land In Govt. Jurisdiction	Amount Of Farmland As Defined In FPPA
alfalfa,sm grains, corn, irrig pastur	Acres: 0 %	Acres: %

Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS
Prime Farmland Criteria	Emery Area Soil Survey UT623	6/2/08

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	0.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	4.2			
B. Total Acres Statewide And Local Important Farmland	0.0			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.1			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	0.0			
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	100	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	100	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	100	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

This form was electronically produced by National Production Services Staff

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1– Federal agencies involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form.

Step 2 – Originator will send copies A, B and C together with maps indicating locations of site(s), to the Natural Resources Conservation Service (NRCS) local field office and retain copy D for their files. (Note: NRCS has a field office in most counties in the U.S. The field office is usually located in the county seat. A list of field office locations are available from the NRCS State Conservationist in each state).

Step 3 – NRCS will, within 45 calendar days after receipt of form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland.

Step '4 – In cases where farmland covered by the FPPA will be converted by the proposed project, NRCS field offices will complete Parts II, IV and V of the form.

Step 5 – NRCS will return copy A and B of the form to the Federal agency involved in the project. (Copy C will be retained for NRCS records).

Step 6 – The Federal agency involved in the proposed project will complete Parts VI and VII of the form.

Step 7 – The Federal agency involved in the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA and the agency's internal policies.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

Part I: In completing the "County And State" questions list all the local governments that are responsible for local land controls where site(s) are to be evaluated.

Part III: In completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them.

2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities) that will cause a direct conversion.

Part VI: Do not complete Part VI if a local site assessment is used.

Assign the maximum points for each site assessment criterion as shown in § 658.5 (b) of CFR. In cases of corridor-type projects such as transportation, powerline and flood control, criteria #5 and #6 will not apply and will, be weighed zero, however, criterion #8 will be weighed a maximum of 25 points, and criterion #11 a maximum of 25 points.

Individual Federal agencies at the national level, may assign relative weights among the 12 site assessment criteria other than those shown in the FPPA rule. In all cases where other weights are assigned relative adjustments must be made to maintain the maximum total weight points at 160.

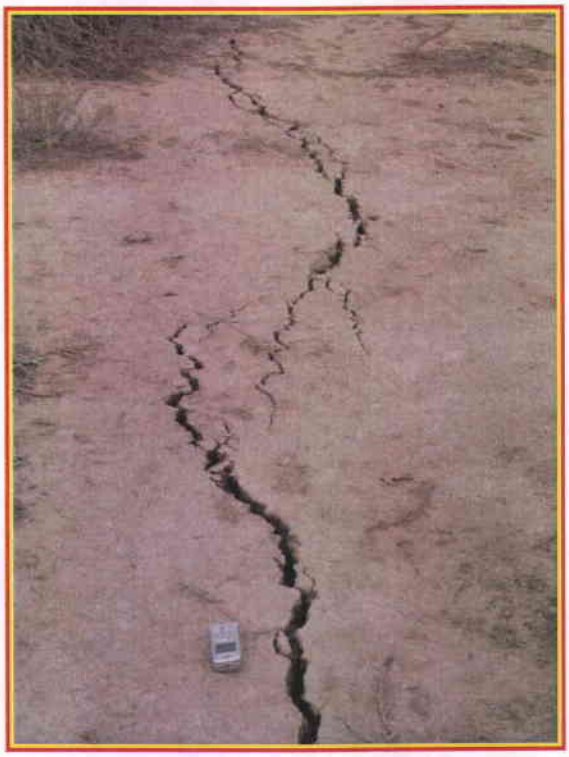
In rating alternative sites, Federal agencies shall consider each of the criteria and assign points within the limits established in the FPPA rule. Sites most suitable for protection under these criteria will receive the highest total scores, and sites least suitable, the lowest scores.

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, adjust the site assessment points to a base of 160. Example: if the Site Assessment maximum is 200 points, and alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site "A."}$$

APPENDIX C

Photos of subsidence at Emery Mine



Photos 1, 2, and 3 GPS Unit is 5 x 3 inches for scale. April 2008.

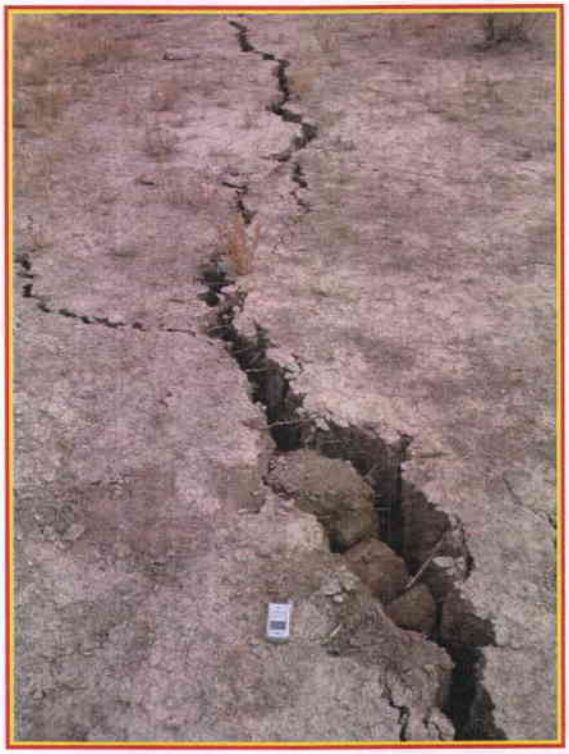


Photo 2

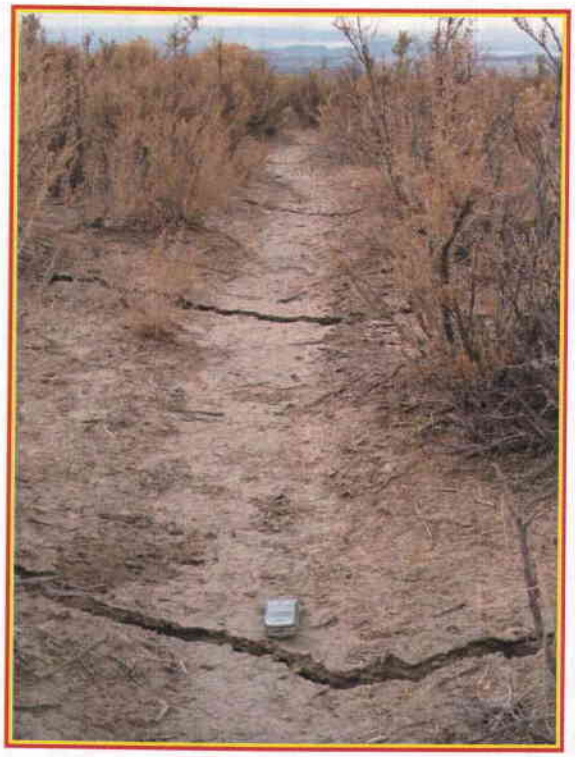


Photo 3

Photo 4

Price Field Office
125 South 600 West
Price, Utah 84501

3425
UTU-86038
UT-070

MEMORANDUM

To: State Director, Utah (UT-924)

From: Field Office Manager

Subject: Coal Lease Application UTU-86038, Miller Canyon Tract, Consolidation Coal Company

Attached is a copy of a Decision Record / Finding of No Significant Impact sheet for the subject lease application. The Decision Record (DR) references the environmental assessment document which has been written for the coal mining proposal. As noted in the DR, the leasing of this tract is in conformance with the current Price River Resource Area Resource Management Plan and it is our recommendation that the tract be held for competitive sealed bid with standard lease stipulations.

If you have further questions, please contact Steve Rigby of my staff (435) 636-3600.

acting Field Office Manager — Wayne Ludington

3/02/09
Date

Attachment
Decision Record / Finding of No Significant Impact

3425
UTU-86038
UT-070

DECISION RECORD / FINDING OF NO SIGNIFICANT IMPACT

EA Log No.: UT-070-2008-104 Project Name: Miller Canyon Tract Lease

EA Preparation Date: December 18, 2008

BLM Office: Price Field Office County: Carbon

BLM Office Location: Price, Utah Phone No.: (801) 636-3600

Applicant: Consolidation Coal Co. Phone No.: (724) 485-4000

Address: CNX Center
1000 Consol Energy Drive
Cannonsburg, PA 15317

EA Preparer: JBR Env. Consultants, Inc. Phone No.: (801) 943-4144

Address: 8160 Highland Drive, A-4
Sandy, UT 84093

RECORD OF DECISION

Decision:

My decision is to recommend holding a lease sale of the Federal coal lease application with the existing standard lease stipulations. The authority for the lease sale is under the Mineral Leasing Act of 1920, as amended.

Rationale:

1. The action is not adverse to local, state or Federal land use plans for the area.

2. The proposed action is in conformance with the Price River Planning Area Resource Management Plan.

3. The proposed action would not cause any significant environmental impacts.

4. The proposed lease tract would provide significant coal reserves adjacent to an existing mine which includes other federal coal leases, where mining is ongoing and would avoid potential coal bypass.

Finding of No Significant Impact:

Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that impacts of leasing the coal tract are not expected to be significant and an environmental impact statement is not required.

Wayne Lundington
Field Office Manager

03/02/09
Date

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
http://www.blm.gov

IN REPLY REFER TO:
3425
UTU-86038
(UT-923)

OCT 27 2009

CERTIFIED MAIL – Return Receipt Requested

DECISION

Consolidation Coal Company	:	
CNX Center	:	Coal Lease
1000 CONSOL Energy Drive	:	UTU-86038
Canonsburg, PA 15317	:	
	:	

Lease Issued
Bond Accepted

Pursuant to the September 3, 2009, Lease By Application Coal Sale, the bid of Consolidation Coal Company, was determined to be the acceptable high bid for the Miller Canyon Tract. Satisfactory evidence of the qualifications and holdings of the bidder has been reviewed and found to be acceptable.

On October 6, 2009, Consolidation Coal Company furnished to this office a surety bond in the amount of $5,000, with Consolidation Coal Company, as principal, and Safeco Insurance Company of America, as surety, which provides bond coverage for coal lease UTU-86038. This bond has been reviewed by this office and has been found acceptable as of October 6, 2009, the date of filing in this office.

First year's rental of $360 was submitted by the bidder. Four copies of the lease form have been executed by the bidder and returned to the Utah State Office, Bureau of Land Management on October 27, 2009. Therefore, coal lease UTU-86038 is hereby issued effective October 1, 2009. The issue date of October 1, 2009 has been determined to be appropriate due to a written request made by Consolidation Coal Company on September 28, 2009 and pursuant to the regulations at 43 CFR 3475.3(a).

Annual rental of $360 and a bonus bid payment of $40,320 will be due prior to the next anniversary date of October 1, 2010.

Roger L Bankert

Roger L. Bankert
Chief, Branch of Minerals

Enclosures:
1. Coal Lease UTU-86038

cc: Safeco Insurance Company of America, 1001 4th Avenue, Suite 1700, Seattle, WA 98154
Price Coal Office (Attn: Steve Falk) (w/encl.)
MMS, Solid Minerals Staff (w/encl,)
Resource Development Coordinating Committee (w/encl,)
Mr. John Baza, Director, UDOGM, Box 145801, SLC, UT 84114-5801 (w/encl,)

Form 3400-12
(April 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

COAL LEASE

FORM APPROVED
OMB NO. 1004-0073
Expires: March 31, 2010

Serial Number
UTU - 86038

BLM UT - 2009 OCT 27 AM 11 28

PART 1. LEASE RIGHTS GRANTED

This lease, entered into by and between the UNITED STATES OF AMERICA, hereinafter called lessor, through the Bureau of Land Management (BLM), and *(Name and Address)*

Consolidation Coal Company
CNX Center
1000 Consol Energy Drive
Canonsburg, PA 15317

hereinafter called lessee, is effective *(date)* OCT 01 2009 for a period of 20 years and for so long thereafter as coal is produced in commercial quantities from the leased lands, subject to readjustment of lease terms at the end of the 20th lease year and each 10-year period thereafter.

Sec. 1. This lease is issued pursuant and subject to the terms and provisions of the:

☑ Mineral Lands Leasing Act of 1920, Act of February 25, 1920, as amended, 41 Stat. 437, 30 U.S.C. 181-287, hereinafter referred to as the Act;

☐ Mineral Leasing Act for Acquired Lands, Act of August 7, 1947, 61 Stat. 913, 30 U.S.C. 351-359;

and to the regulations and formal orders of the Secretary of the Interior which are now or hereafter in force, when not inconsistent with the express and specific provisions herein.

Sec. 2. Lessor, in consideration of any bonuses, rents, and royalties to be paid, and the conditions and covenants to be observed as herein set forth, hereby grants and leases to lessee the exclusive right and privilege to drill for, mine, extract, remove, or otherwise process and dispose of the coal deposits in, upon, or under the following described lands:

T. 22 S., R. 6 E., SLM, Utah
Sec. 23, S2SW;
Sec. 26, NWNW.

containing 120.00 acres, more or less, together with the right to construct such works, buildings, plants, structures, equipment and appliances and the right to use such on-lease rights-of-way which may be necessary and convenient in the exercise of the rights and privileges granted, subject to the conditions herein provided.

PART II. TERMS AND CONDITIONS

Sec. 1. (a) RENTAL RATE -Lessee must pay lessor rental annually and in advance for each acre or fraction thereof during the continuance of the lease at the rate of $ 3.00 for each lease year.

(b) RENTAL CREDITS -Rental will not be credited against either production or advance royalties for any year.

Sec. 2. (a) PRODUCTION ROYALTIES - The royalty will be 8 percent of the value of the coal as set forth in the regulations. Royalties are due to lessor the final day of the month succeeding the calendar month in which the royalty obligation accrues.

(b) ADVANCE ROYALTIES - Upon request by the lessee, the BLM may accept, for a total of not more than ~~10 years~~ * the payment of advance royalties in lieu of continued operation, consistent with the regulations. The advance royalty will be based on a percent of the value of a minimum number of tons determined in the manner established by the advance royalty regulations in effect at the time the lessee requests approval to pay advance royalties in lieu of continued operation.

* 20 years (Public Law 109-58)

Sec. 3. BONDS - Lessee must maintain in the proper office a lease bond in the amount of $ 5,000.00 . The BLM may require an increase in this amount if additional coverage is determined appropriate.

Sec. 4. DILIGENCE - This lease is subject to the conditions of diligent development and continued operation, except that these conditions are excused when operations under the lease are interrupted by strikes, the elements, or casualties not attributable to the lessee. The lessor, in the public interest, may suspend the condition of continued operation upon payment of advance royalties in accordance with the regulations in existence at the time of the suspension. Lessee's failure to produce coal in commercial quantities at the end of 10 years will terminate the lease. Lessee must submit an operation and reclamation plan pursuant to Section 7 of the Act not later than 3 years after lease issuance.

The lessor reserves the power to assent to or order the suspension of the terms and conditions of this lease in accordance with, inter alia, Section 39 of the Mineral Leasing Act, 30 U.S.C. 209.

5. LOGICAL MINING UNIT (LMU) - Either upon approval by the lessor of the lessee's application or at the direction of the lessor, this lease will become an LMU or part of an LMU, subject to the provisions set forth in the regulations.

The stipulations established in an LMU approval in effect at the time of LMU approval will supersede the relevant inconsistent terms of this lease so long as the lease remains committed to the LMU. If the LMU of which this lease is a part is dissolved, the lease will then be subject to the lease terms which would have been applied if the lease had not been included in an LMU.

(Continued on page 2)

Sec. 6. DOCUMENTS, EVIDENCE AND INSPECTION - At such times and in such form as lessor may prescribe, lessee must furnish detailed statements showing the amounts and quality of all products removed and sold from the lease, the proceeds therefrom, and the amount used for production purposes or unavoidably lost.

Lessee must keep open at all reasonable times for the inspection by BLM the leased premises and all surface and underground improvements, works, machinery, ore stockpiles, equipment, and all books, accounts, maps, and records relative to operations, surveys, or investigations on or under the leased lands.

Lessee must allow lessor access to and copying of documents reasonably necessary to verify lessee compliance with terms and conditions of the lease.

While this lease remains in effect, information obtained under this section will be closed to inspection by the public in accordance with the Freedom of Information Act (5 U.S.C. 552).

Sec. 7. DAMAGES TO PROPERTY AND CONDUCT OF OPERATIONS - Lessee must comply at its own expense with all reasonable orders of the Secretary, respecting diligent operations, prevention of waste, and protection of other resources.

Lessee must not conduct exploration operations, other than casual use, without an approved exploration plan. All exploration plans prior to the commencement of mining operations within an approved mining permit area must be submitted to the BLM.

Lessee must carry on all operations in accordance with approved methods and practices as provided in the operating regulations, having due regard for the prevention of injury to life, health, or property, and prevention of waste, damage or degradation to any land, air, water, cultural, biological, visual, and other resources, including mineral deposits and formations of mineral deposits not leased hereunder, and to other land uses or users. Lessee must take measures deemed necessary by lessor to accomplish the intent of this lease term. Such measures may include, but are not limited to, modification to proposed siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures. Lessor reserves to itself the right to lease, sell, or otherwise dispose of the surface or other mineral deposits in the lands and the right to continue existing uses and to authorize future uses upon or in the leased lands, including issuing leases for mineral deposits not covered hereunder and approving easements or rights-of-way. Lessor must condition such uses to prevent unnecessary or unreasonable interference with rights of lessee as may be consistent with concepts of multiple use and multiple mineral development.

Sec. 8. PROTECTION OF DIVERSE INTERESTS, AND EQUAL OPPORTUNITY - Lessee must: pay when due all taxes legally assessed and levied under the laws of the State or the United States; accord all employees complete freedom of purchase; pay all wages at least twice each month in lawful money of the United States; maintain a safe working environment in accordance with standard industry practices; restrict the workday to not more than 8 hours in any one day for underground workers, except in emergencies; and take measures necessary to protect the health and safety of the public. No person under the age of 16 years should be employed in any mine below the surface. To the extent that laws of the State in which the lands are situated are more restrictive than the provisions in this paragraph, then the State laws apply.

Lessee will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and the rules, regulations, and relevant orders of the Secretary of Labor. Neither lessee nor lessee's subcontractors should maintain segregated facilities.

Sec. 9. (a) TRANSFERS

☑ This lease may be transferred in whole or in part to any person, association or corporation qualified to hold such lease interest.

☐ This lease may be transferred in whole or in part to another public body or to a person who will mine coal on behalf of, and for the use of, the public body or to a person who for the limited purpose of creating a security interest in favor of a lender agrees to be obligated to mine the coal on behalf of the public body.

☐ This lease may only be transferred in whole or in part to another small business qualified under 13 CFR 121.

Transfers of record title, working or royalty interest must be approved in accordance with the regulations.

(b) RELINQUISHMENT - The lessee may relinquish in writing at any time all rights under this lease or any portion thereof as provided in the regulations. Upon lessor's acceptance of the relinquishment, lessee will be relieved of all future obligations under the lease or the relinquished portion thereof, whichever is applicable.

Sec. 10. DELIVERY OF PREMISES, REMOVAL OF MACHINERY, EQUIPMENT, ETC. - At such time as all portions of this lease are returned to lessor, lessee must deliver up to lessor the land leased, underground timbering, and such other supports and structures necessary for the preservation of the mine workings on the leased premises or deposits and place all workings in condition for suspension or abandonment. Within 180 days thereof, lessee must remove from the premises all other structures, machinery, equipment, tools, and materials that it elects to or as required by the BLM. Any such structures, machinery, equipment, tools, and materials remaining on the leased lands beyond 180 days, or approved extension thereof, will become the property of the lessor, but lessee may either remove any or all such property or continue to be liable for the cost of removal and disposal in the amount actually incurred by the lessor. If the surface is owned by third parties, lessor will waive the requirement for removal, provided the third parties do not object to such waiver. Lessee must, prior to the termination of bond liability or at any other time when required and in accordance with all applicable laws and regulations, reclaim all lands the surface of which has been disturbed, dispose of all debris or solid waste, repair the offsite and onsite damage caused by lessee's activity or activities incidental thereto, and reclaim access roads or trails.

Sec. 11. PROCEEDINGS IN CASE OF DEFAULT - If lessee fails to comply with applicable laws, existing regulations, or the terms, conditions and stipulations of this lease, and the noncompliance continues for 30 days after written notice thereof, this lease will be subject to cancellation by the lessor only by judicial proceedings. This provision will not be construed to prevent the exercise by lessor of any other legal and equitable remedy, including waiver of the default. Any such remedy or waiver will not prevent later cancellation for the same default occurring at any other time.

Sec. 12. HEIRS AND SUCCESSORS-IN-INTEREST - Each obligation of this lease will extend to and be binding upon, and every benefit hereof will inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

Sec. 13. INDEMNIFICATION -Lessee must indemnify and hold harmless the United States from any and all claims arising out of the lessee's activities and operations under this lease.

Sec. 14. SPECIAL STATUTES - This lease is subject to the Clean Water Act (33 U.S.C. 1252 et seq.), the Clean Air Act (42 U.S.C. 4274 et seq.), and to all other applicable laws pertaining to exploration activities, mining operations and reclamation, including the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.).

Sec. 15. SPECIAL STIPULATIONS

This coal lease is subject to termination if the lessee is determined at the time of issuance to be in noncompliance with Section 2(a)2(a) of the Mineral Leasing Act as amended.

SEE ATTACHED SPECIAL STIPULATIONS

(Continued on page 3)

Sec. 15. SPECIAL STIPULATIONS (Cont'd.) -

THE UNITED STATES OF AMERICA

CONSOLIDATION COAL COMPANY
(Company or Lessee Name)

By [signature]

X [signature]
(Signature of Lessee)

UTAH STATE OFFICE
(BLM)

VICE PRESIDENT
(Title)

DEPUTY STATE DIRECTOR
(Title)

OCT 26 2009
(Date)

OCT 27 2009
(Date)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished with the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181-287 and 30 U.S.C. 351-359.
PRINCIPAL PURPOSE: BLM will use the information you provide to process your application and determine if you are eligible to hold a lease on BLM Land.
ROUTINE USES: BLM will only disclose the information according to the regulations at 43 CFR 2.56(d).
EFFECT OF NOT PROVIDING INFORMATION: Disclosing the information is necessary to receive a benefit. Not disclosing the information may result in BLM's rejecting your request for a lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to authorize and evaluate proposed exploration and mining operations on public lands.
Response to the provisions of this lease form is mandatory for the types of activities specified.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average one hour per response including the time for reading the instructions and provisions, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0073), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, Mail Stop 401 LS, Washington, D.C. 20240.

SPECIAL STIPULATIONS

Miller Canyon LBA

UTU-86038

1. In accordance with Sec. 523(b) of the "Surface Mining Control and Reclamation Act of 1977," surface mining and reclamation operations conducted on this lease are to conform with the requirements of this act and are subject to compliance with Office of Surface Mining regulations, or as applicable, a Utah program equivalent approved under cooperative agreement in accordance with Sec.523(c). The United States Government does not warrant that the entire tract will be susceptible to mining.

2. Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the Lessee may be required to conduct a cultural resource inventory and a paleontological appraisal of the areas to be disturbed. These studies shall be conducted by qualified professional cultural resource specialists or qualified paleontologists, as appropriate, and a report prepared itemizing the findings. A plan will then be submitted making recommendations for the protection of, or measures to be taken to mitigate impacts for identified cultural or paleontological resources. If cultural resources or paleontological remains (fossils) of significant scientific interest are discovered during operations under this lease, the Lessee prior to disturbance shall immediately bring them to the attention of the appropriate authorities. Paleontological remains of significant scientific interest do not include leaves, ferns, or dinosaur tracks commonly encountered during underground mining operations. The cost of conducting the inventory, preparing reports, and carrying out mitigating measures shall be borne by the Lessee.

3. If there is reason to believe that Threatened or Endangered (T&E) species of plants or animals, or migratory bird species of high Federal interest occur in the area , the Lessee shall be required to conduct an intensive field inventory of the area to be disturbed and/or impacted. The inventory shall be conducted by a qualified specialist and a report of findings will be prepared. A plan will be prepared making recommendations for the protection of these species or action necessary to mitigate the disturbance. The cost of conducting the inventory, preparing reports and carrying out mitigating measures shall be borne by the Lessee.

4. The Lessee shall be required to perform a study to secure adequate baseline data to quantify the existing surface resources on and adjacent to the lease area. Existing data may be used if such data are adequate for the intended purposes. The study shall be adequate to locate, quantify, and demonstrate the interrelationship of the geology, topography, surface and groundwater hydrology, vegetation and wildlife. Baseline data will be established so that future programs of observation can be incorporated at regular intervals for comparison.

5. Power lines used in conjunction with the mining of coal from this lease shall be constructed so as to provide adequate protection for raptors and other large birds. When feasible, power lines will be located at least 100 yards from public roads.

6. The Lessee shall be required to establish a monitoring system to locate, measure, and quantify the progressive and final effects of underground mining activities on the topographic surface, ground water

and surface hydrology and vegetation. The monitoring system shall utilize techniques which will provide a continuing record of change over time and an analytical method for location and measurement of a number of points over the lease area. The monitoring shall incorporate and be an extension of the baseline data. The methodology (point locations and report frequency) will be approved by the Authorized Officer prior to implementation and base line data gathering. Reports on the progression of subsidence shall be submitted to the Authorized Officer as per the approved methodology.

7. Except at locations specifically approved by the Authorized Officer, underground mining operations shall be conducted in such a manner so as to prevent surface subsidence that would: (1) cause the creation of hazardous conditions such as potential escarpment failure and landslides, (2) cause damage to existing surface structures, or (3) damage or alter the flow of perennial streams. The Lessee shall provide specific measures for the protection of escarpments, and determine corrective measures to assure that hazardous conditions are not created.

8. In order to avoid surface disturbance on steep canyon slopes and to preclude the need for surface access, all surface breakouts for ventilation tunnels shall be constructed from inside the mine, except at specifically approved locations.

9. If removal of timber is required for clearing of construction sites, etc., such timber shall be removed in accordance with the regulations of the Authorized Officer.

10. In order to protect big game wintering areas, elk calving and deer fawning areas, sage grouse strutting areas, and other critical wildlife habitat and/or activities, specific surface uses outside the mine development area may be curtailed during specific periods of the year.

11. Support facilities, structures, equipment, and similar developments will be removed from the lease area within 2 years after the final termination of use of such facilities. This provision shall apply unless the requirement of Section 10 of the lease form is applicable. Disturbed areas and those areas previously occupied by such facilities will be stabilized and rehabilitated, drainages re-established, and the areas returned to a pre mining land use.

12. The Lessee at the conclusion of the mining operation, or at other times as surface disturbance related to mining may occur, will replace all damaged, disturbed, or displaced corner monuments (section corners, quarter corners, etc.) their accessories and appendages (witness trees, bearing trees, etc.), or restore them to their original condition and location, or at other locations that meet the requirements of the rectangular surveying system. This work shall be conducted at the expense of the Lessee, by the Bureau of Land Management (BLM) land surveyors to the standards and guidelines found in the Manual of Surveying Instructions, U.S. Department of Interior.

13. The Lessee, at his expense, will be responsible to replace any surface and/or ground water sources identified for protection, which may be lost or adversely affected by mining operations, with water from an alternate source in sufficient quantity and quality to maintain existing riparian habitat, fishery habitat, livestock and wildlife use, or other land uses.

14. Notwithstanding the approval of a resource recovery and protection plan by the BLM, lessor reserves the right to seek damages against the operator/lessee in the event (1) the operator/lessee fails to achieve maximum economic recovery [as defined at 43 CFR §3480.0-5(21)] of the recoverable coal reserves or

(ii) the operator/lessee is determined to have caused a wasting of recoverable coal reserves. Damages shall be measured on the basis of the royalty that would have been payable on the wasted or unrecovered coal.

The parties recognize that under an approved R2P2, conditions may require a modification by the operator/lessee of that plan. In the event a coal bed or portion thereof is not to be mined or is rendered unminable by the operation, the operator shall submit appropriate justification to obtain approval by the AO to leave such reserves unmined. Upon approval by the AO, such coal beds or portions thereof shall not be subject to damages as described above. Further, nothing in this section shall prevent the operator/lessee from exercising its right to relinquish all or a portion of the lease as authorized by statute and regulation.

In the event the AO determines that the R2P2 modification will not attain MER resulting from changed conditions, the AO will give proper notice to the operator/lessee as required under applicable regulations. The AO will order a new R2P2 modification if necessary, identifying additional reserves to be mined in order to attain MER. Upon a final administrative or judicial ruling upholding such an ordered modification, any reserves left unmined (wasted) under that plan will be subject to damages as described in the first paragraph under this section.

Subject to the right to appeal hereinafter set forth, payment of the value of the royalty on such unmined recoverable coal reserves shall become due and payable upon determination by the AO that the coal reserves have been rendered unminable or at such time that the lessee has demonstrated an unwillingness to extract the coal.

The BLM may enforce this provision either by issuing a written decision requiring payment of the MMS demand for such royalties, or by issuing a notice of non-compliance. A decision or notice of non-compliance issued by the lessor that payment is due under this stipulation is appealable as allowed by law.

15. The lessee shall provide prior to sealing an area and prior to lease relinquishment (if not already submitted), certification to the lessor that, based upon a complete search of all the operator's records for the mine and upon their knowledge of past operations, there has been no hazardous substances per (40 CFR 302.4) or used oil as per Utah State Management Rule R-315-15, deposited within the lease, either on the surface or underground, or that all remedial action necessary has been taken to protect human health and the environment with respect to any such substances remaining on the property. The back-up documentation to be provided shall be described by the lessor prior to the first certification and shall include all documentation applicable to the Emergency Planning and Community Right-to-know Act (EPCRA, Public Law 99-499), Title III of the Superfund Amendments and Reauthorization Act of 1986 or equivalent.

16. The lessee/operator is responsible for compliance with reporting regarding toxic and hazardous material and substances under Federal Law and all associated amendments and regulations for the handling such materials on the land surface and in underground mine workings.

The lessee/operator must remove mine equipment and materials not needed for continued operations, roof support and mine safety from underground workings prior to abandonment of mine sections. Exceptions can be approved by the Authorized Officer (BLM) in consultation with the surface management agency. Creation of a situation that would prevent removal of such material and by retreat or abandonment of mine sections without prior authorization would be considered noncompliance with lease terms and conditions and subject to appropriate penalties under the lease.

17. All safe and accessible areas shall be inspected prior to being sealed. The lessee shall notify the Authorized Officer in writing 30 days prior to the sealing of any areas in the mine and state the reason for closure. Prior to seals being put into place, the lessee shall inspect the area and document any equipment/machinery, hazardous substances, and used oil that is to be left underground.

The Authorized Officer may participate in this inspection. The purpose of this inspection will be: (1) to provide documentation for compliance with 42 U.S.C. 9620 section 120(h) and State Management Rule R-315-15 , and to assure that certification will be meaningful at the time of lease relinquishment, (2) to document the inspection with a mine map showing location of equipment/machinery (model, type of fluid, amount remaining, batteries etc .) that is proposed to be left underground. In addition, these items will be photographed at the lessee's expense and shall be submitted to the Authorized Officer as part of the certification. The abandonment of any equipment/machinery shall be on a case by case basis and shall not be accomplished unless the Authorized Officer has granted a written approval. Any on-site disposal of non-coal waste must comply with 30 CPR § 817.89 and must be approved by the regulatory authority responsible for the enforcement of the Surface Mining Control and Reclamation Act (30 U.S.C. 1201 , et seq.).

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
http://www.blm.gov

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
3482
UTU-86038
(UT-923)

Certified Mail--Return Receipt Requested
Certificate No. 7008 1140 0000 3706 1024

OCT 06 2009

US Department of Interior
Office of Surface Mining
PO Box 46667
Denver, Colorado 80201-6667

Attn: Carl Johnston, Federal Lands Coordinator

Re: Recommendation for Initial Approval – Resource Recovery and Protection Plan (R2P2); addition of new Federal Coal Lease UTU-86038 and extension of "00-North" Panel, Emery Mine

Dear Mr. Johnston:

The Bureau of Land Management (BLM) received on September 16, 2009, a request from Consol Energy (Consol) for revision of the existing Resource Recovery and Protection Plan (R2P2) at the subject mine. The proposed R2P2 revises the mine layout by adding the new 120 acre Federal Coal Lease UTU-86038 (also Known as "Miller Canyon"). This letter summarizes and documents the BLM's findings and decision on this new R2P2.

This new lease represents a continuation of the 00-North Panel which is currently mining on Consol Fee Coal. This is a Continuous miner (CM) panel and will extend onto the Miller Canyon Lease at such time as all necessary approvals are granted, including Assistant Secretary of the Interior approval, as required for all new Federal Coal Leases. This mine was inspected by BLM on May 14, 2009 and August 28, 2009.

Proposed Plan: Consol has entered into panel 00-North on their fee land. The section has been necked-off to the southeast and will then turn in a northeasterly direction, in 6 entries towards the new Federal lease. These entries will be mining under very shallow cover (less than 200') skirting "burned" (oxidized) outcrop coal to the southeast and rock partings to the northwest. As such, the number of entries may change from time to time by either dropping or picking up entries as required. The current mining of 00-North on Fee land would be extended to the northeast onto the Miller Canyon Lease once the lease sale took place and Secretarial approval for the new mining plan was issued. Mining will proceed on the Fee land to the northeast and it is expected that by the time Consol reaches the new lease boundary, that the permitting and Secretarial approval necessary to cross over into the new lease will have been received.

Reasoning behind this change (addition) was to add the new Miller Canyon Federal Coal Lease (UTU-86038). The new Federal Coal Lease is not yet within the currently approved Logical Mining Unit (LMU) boundary and in order for it to be included into the LMU and made a part of the LMU-wide bond, Consol Energy will need to apply for this inclusion to the BLM Authorized Officer.

Maximum Economic Recovery (MER): Full extraction of recoverable coal reserves will enable MER of the coal in Federal Coal lease UTU-86038 to be achieved, assuming that all other approvals are received for this new Federal Coal Lease mine plan.

Recoverable Reserve Base: The estimated recoverable coal base for UTU-86038 is 0.56 million tons. This recommendation for approval represents an increase in LMU tonnage (fee coal) of 560,000 tons recoverable.

Approval Recommendation: The plan allows for development of the new 00-North panel onto the new lease, will also allow retreat mining as approved, and is conformance with the BLM land use plan. It is important to note that this recommendation for approval is subject to all coal lease stipulations as outlined in the lease document.

The BLM finds the submitted R2P2 in compliance with the Mineral Leasing Act of 1920, as amended, the lease terms and conditions, the regulations at 43 CFR 3480. The BLM has also determined that the R2P2 (as submitted on September 16, 2009) will achieve maximum economic recovery of the Federal coal. We therefore recommend that the Secretary approve the R2P2 as part of the Federal Mine Plan.

A copy of the approved mine map is enclosed.

Sincerely,

Roger L Bankert

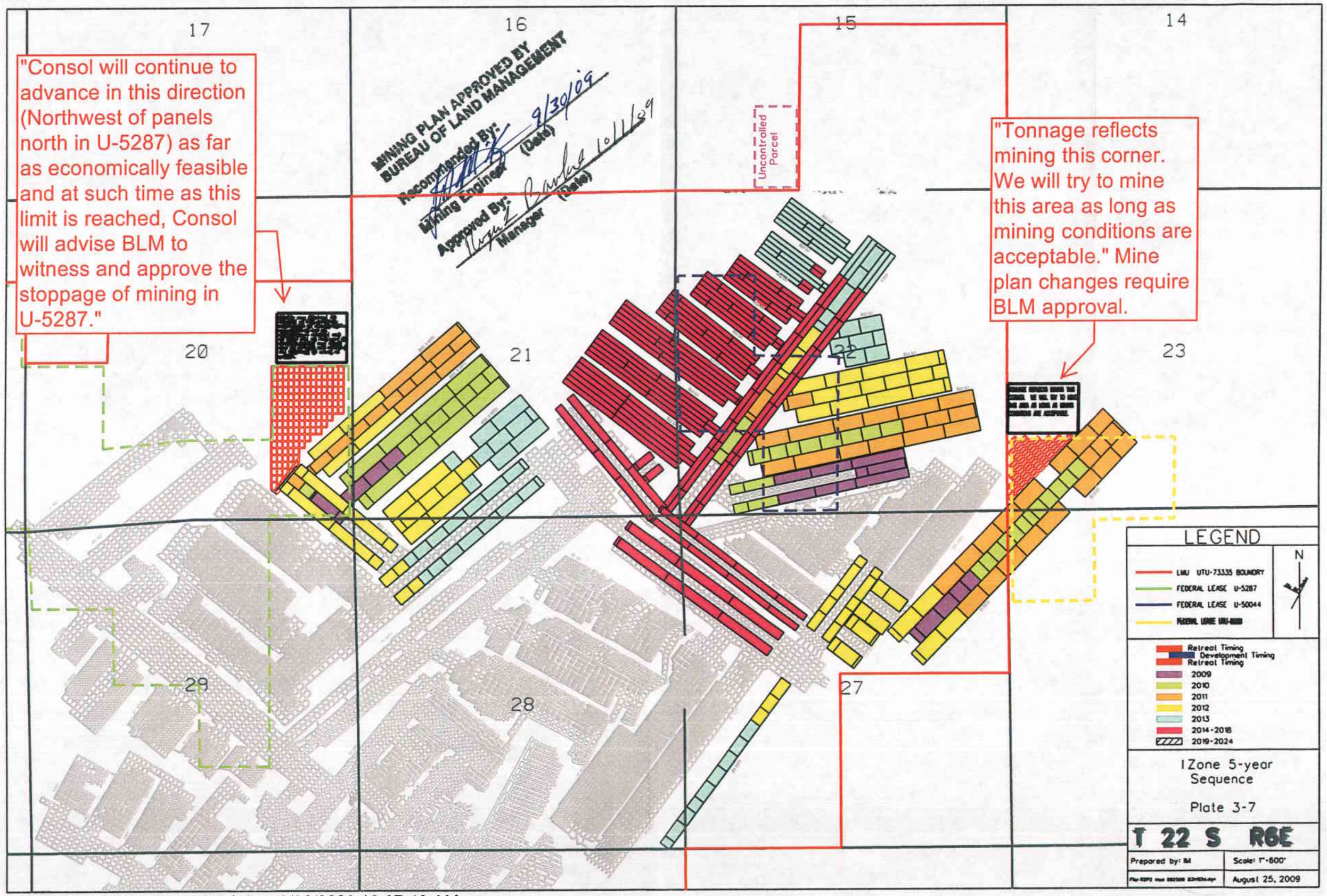
Roger Bankert
Chief, Branch of Minerals

Enclosure:
Approved Mine Map

cc: Ian McClain (w/ Enclosure)
Consol Energy, Emery Mine
PO Box 527
Emery, Utah 84522

Daron Haddock, Coal Program Manager
Utah Division of Oil Gas and Mining (w/ Enclosure)
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

UT-070, Price Field Office (w/ Enclosure)



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09-0267

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Green River District-Price Field Office
125 South 600 West
Price, UT 84501
(435) 636-3600 Fax: (435) 636-3657
http://www.blm.gov/ut/st/en/fo/price.html

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
8100 (LLUTG02000)

FEB 03 2009

State Historic Preservation Officer
Utah State Historical Society
300 Rio Grande
Salt Lake City, Utah 84101-1182

Project Name: Consol Mine Lease Expansion.

PART I. Project Description

County: Emery
Project Number: U-08-MQ-0557b

This undertaking is a 120 acre lease extension parcel for the Consol Energy's Emery Mine. Mining activities on this lease will only take place North West of a coal burn line shown on Figure 1 of the enclosed report. The six sites, (five of them eligible for the National Register) should not be adversely affected by the mining. The mined area will subside, but because of the nature of the sites artifact scatters, they should not be affected. They will be monitored to make sure this assumption is correct.

PART II. Determination of Eligibility to the National Register of Historic Places

BLM requests your concurrence on the following determinations of eligibility and effect:

DETERMINATION OF ELIGIBILITY				
SITE NUMBER	NOT ELIGIBLE	NEED DATA	ELIGIBLE	ELIGIBILITY CRITERIA
42EM226			X	D

Received
FEB 10 2009
USHPO

42EM228	X			
42EM612			X	D
42EM1068	X			
42EM3958			X	D
42EM3959	X			
42EM3960	X			
42EM3961			X	D
42EM3962			X	D
42EM3963	X			
42EM3964			X	D
42EM3965			X	D
42EM3966			X	D
42EM3967			X	D
42EM3968	X			
42EM3969			X	D
42EM3970	X			
42EM3971			X	D
42EM3972	X			
42EM3973	X			
42EM3974			X	D
42EM3975			X	D
42EM3976			X	D
42EM3977			X	D
42EM3978			X	D
42EM3979			X	D
42EM3980			X	D

Eligible sites will be monitored for subsidence effects. There should be no adverse effects to them from this project.

Please review the enclosed documentation, then sign and return this letter with your comments

BUREAU OF LAND MANAGEMENT, ~~FIELD~~ FIELD OFFICE

Wayne Ludington 2/3/09

BY FIELD OFFICE MANAGER DATE

UTAH STATE HISTORIC PRESERVATION OFFICER

✓ Concur ___ Do Not Concur

LORI HUNSAKER 2.16.09

BY DATE

COMMENTS:

Enclosures
1. Site forms
2. Cultural Resources Inventory Report U-08-MQ-0557b

UNITED STATES
DEPARTMENT OF THE INTERIOR

This mining plan approval document is issued by the United States of America to:

Consolidation Coal Company
P.O. Box 566
Sesser, Illinois 62884

for a mining plan modification for Federal lease UTU-86038 at the Emery Deep Mine. The approval is subject to the following conditions. Consolidation Coal Company is hereinafter referred to as the operator.

1. Statutes and Regulations.--This mining plan approval is issued pursuant to Federal lease UTU-86038; the Mineral Leasing Act of 1920, as amended (30 U.S.C. 181 et seq.); and in the case of acquired lands, the Mineral Leasing Act for Acquired Lands of 1947, as amended (30 U.S.C. 351 et seq.). This mining plan approval is subject to all applicable regulations of the Secretary of the Interior which are now or hereafter in force; and all such regulations are made a part hereof. The operator shall comply with the provisions of the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), the Clean Air Act (42 U.S.C. 7401 et seq.), and other applicable Federal laws.

2. This document approves the mining plan modification for Federal lease UTU-86038 at the Emery Deep Mine and authorizes coal development or mining operations on the Federal lease within the area of mining plan approval. This authorization is not valid beyond:

Township 22 South, Range 6 East, SLBM

Section 23, S½SW¼;
Section 26, NW¼NW¼.

These lands encompass approximately 120.0 acres and are found on the USGS 7.5 minute Quadrangle map of Emery East, Utah, and as shown on the map appended hereto as Attachment A.

3. The operator shall conduct coal development and mining operations only as described in the complete permit application package, and approved by the Utah Division of Oil, Gas and Mining, except as otherwise directed in the conditions of this mining plan approval.

4. The operator shall comply with the terms and conditions of the lease, this mining plan approval, and the requirements of the Utah State Permit No. C/015/0015 issued under the Utah State Program, approved pursuant to the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.).

5. This mining plan approval shall be binding on any person conducting coal development or mining operations under the approved mining plan and shall remain in effect until superseded, canceled, or withdrawn.

6. If during mining operations unidentified prehistoric or historic resources are discovered, the operator shall ensure that the resources are not disturbed and shall notify the Office of Surface Mining Reclamation and Enforcement (OSM). The operator shall take such actions as are required by OSM.

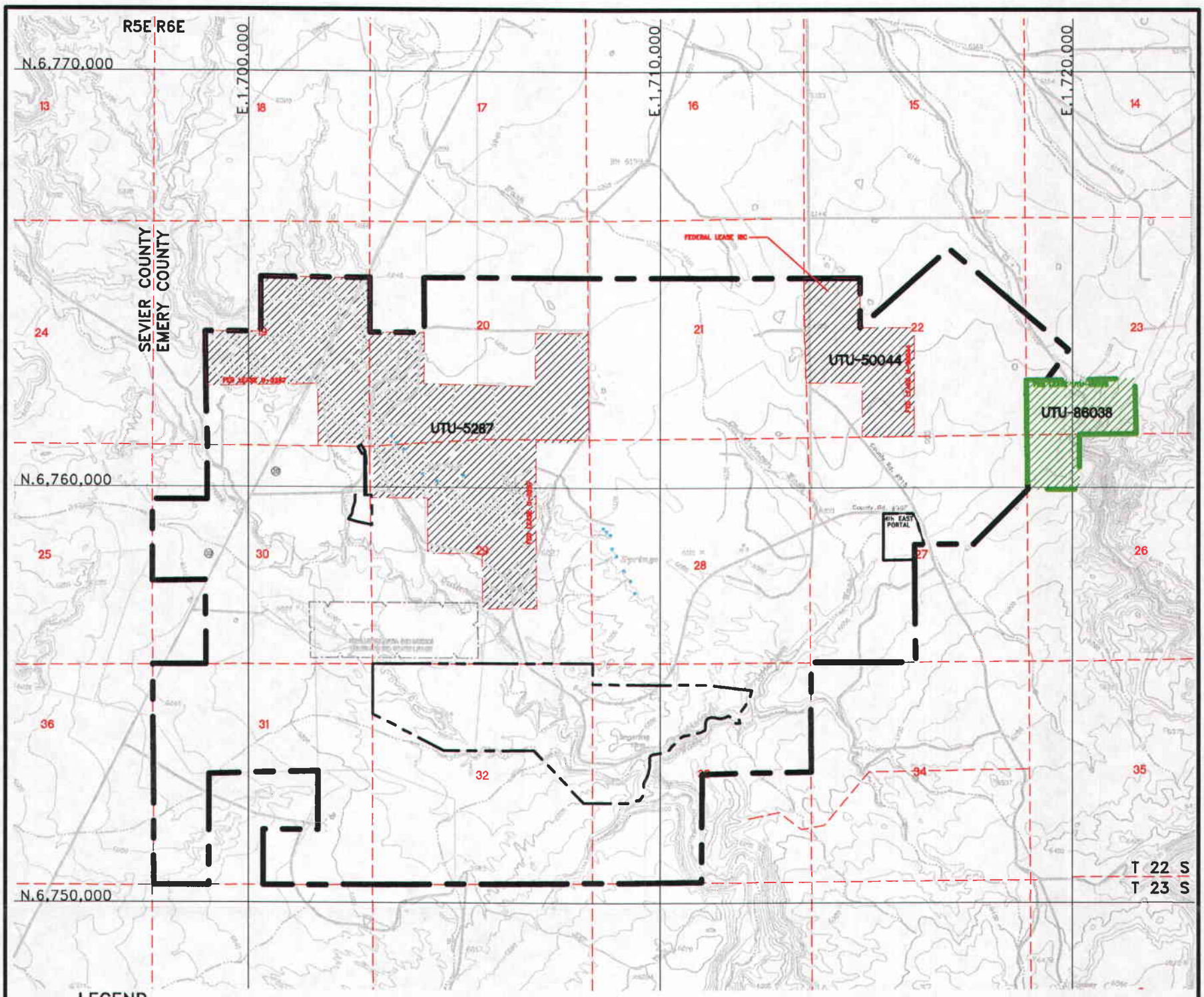
7. The Secretary retains jurisdiction to modify or cancel this approval, as required, on the basis of further consultation with the U.S. Fish and Wildlife Service pursuant to section 7 of the Endangered Species Act, as amended, (16 U.S.C. 1531 *et seq.*)

Ned Farquhar

Assistant Secretary
Land and Minerals Management

11/30/09
Date

Attachment A



LEGEND

PREVIOUS MINING PLAN APPROVAL

PROPOSED MINING PLAN MODIFICATION

PERMIT AREA BOUNDARY

ADJACENT AREA FOR NON-WATER RESOURCES. FOR THE AREA OF HYDROLOGIC EVALUATION, SEE PLATE VI-4

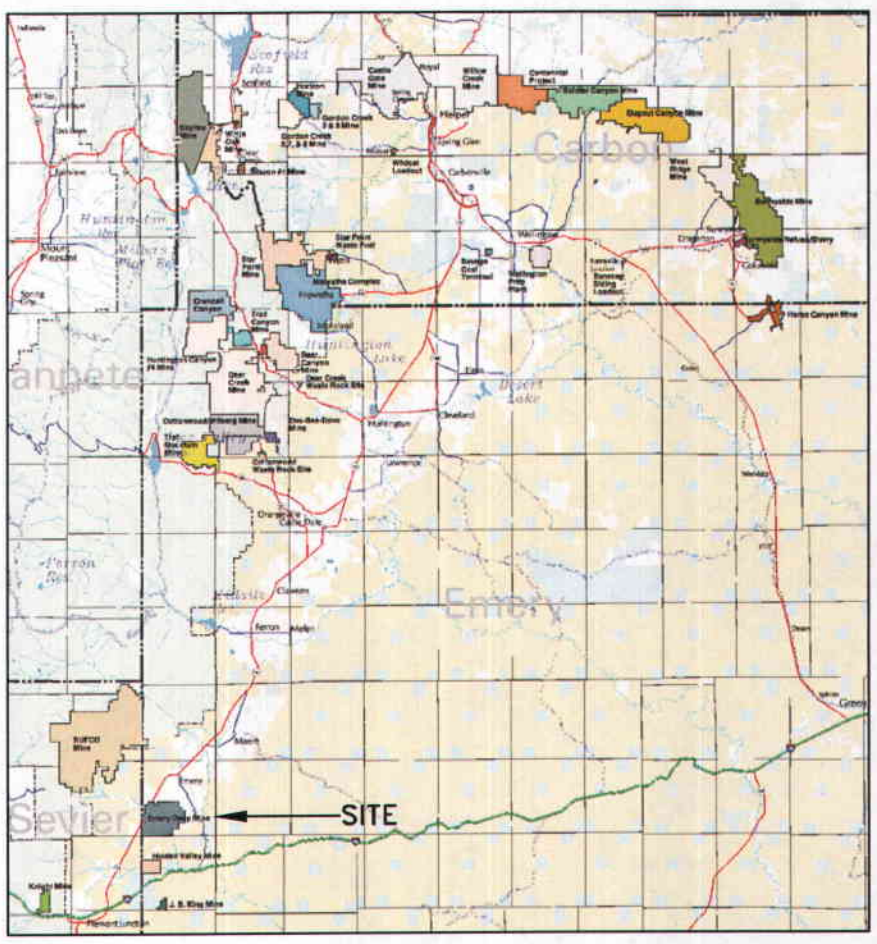
ADJACENT AREA BOUNDARY ADDITION

SITE PLAN

0 0.15 0.3 0.6 miles

1"=3000'

STATE OF UTAH



SITE LOCATION MAP

EMERY DEEP MINE

C00150015
CARBON COUNTY, UTAH
AUGUST, 2009

G:\UC982\08 - Full extraction plans\ZZNLBA\EMERY DEEP MINE-ZNLBA.dwg

JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

October 7, 2009

John A. Gefferth, Environmental Engineer
Consolidation Coal Company
P.O. Box 566
Sesser, Illinois 62884

Subject: Add Zero Zero North LBA, Consolidation Coal Company, Emery Deep Mine, C/015/0015, Task ID #3411

Dear Mr. Gefferth:

The Division of Oil, Gas and Mining (the Division) has reviewed your application to add 120 acres to the Zero Zero North Panel within Federal Lease UTU-86038 and has recommended conditional approval. A stamped incorporated copy of the approved plans will be returned to you and final approval will be granted once the following conditions have been met:

1) Receipt of 6 clean copies for incorporation.
2) Receipt of signed federal lease agreement from the Bureau of Land Management.

If you have any questions, please feel free to contact me (801) 538-5362 or Steve Christensen (801) 538-5350.

Sincerely,

James D. Smith
Permit Supervisor

JDS/SKC/sqs
cc: Price Field Office
O:\015015.EME\FINAL\WG3411\WG3411_Cond_Apprv_Ltr.doc

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR
OIL, GAS & MINING

JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

October 8, 2009

Mr. Carl Johnston, Federal Lands Coordinator
Office of Surface Mining
P. O. Box 46667
Denver, Colorado 80201-6667

Subject: Approval of Zero Zero North LBA, Consolidation Coal Company, Emery Deep Mine, C015/0015, Task ID #3411, Outgoing file

Dear Mr. Johnston:

The Division has completed its review and decision regarding the permitting of Consolidation Coal Company's application for adding the Zero Zero North Lease by Application to the area to be mined. A conditional approval was granted for the application on October 7, 2009. Copies of the approval letter along with the Division's Technical Analysis and Findings Document are enclosed for your files and to assist you in preparing the documents necessary for Federal Mine Plan approval.

We have been informed that the Company is extremely anxious to receive approval of this LBA as they are approaching the lease boundary with their mining. Your help in expediting this project is greatly appreciated.

Please call if you have any questions or need further information.

Sincerely,

Daron R. Haddock
Coal Program Manager

DRH/sqs
Enclosure
O:\015015.EME\FINAL\WG3411\ZZNorthletter to OSM.doc

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING

FINDINGS

Consolidation Coal Company
Emery Deep
C/015/0015
Emery County, Utah

October 8, 2009

1. The Division finds that the application to revise the approved Emery Deep Mining and Reclamation Plan (MRP) to expand mining operations into Federal Lease UTU-86038 is accurate and complete and all requirements of the Surface Mining Control and Reclamation Act, and the approved Utah State Program (the "Act") are in compliance. See Technical Analysis dated October 7th, 2009 (R645-300-133.100)

2. Per R645-301-133.710, the applicant must demonstrate that reclamation as required by the State Program can be accomplished according to information given in the permit application. As the proposed mining expansion into Federal Lease UTU-86038 does not call for any additional surface disturbance, R645-301-133.710 does not apply.

3. Per R645-301-133.400, an assessment of the probable cumulative impacts of all anticipated coal mining and reclamation operations on the hydrologic balance in the cumulative impact area has been conducted. The Cumulative Hydrologic Impact Assessment (dated March 16th, 2007) examined the proposed area of expansion and the potential for mining related impacts on hydrologic resources. The Division finds that the proposed operation and expansion of mining into Federal Lease UTU-86038 has been designed to prevent material damage to the hydrologic balance outside the permit area.

4. The lands to be mined within the proposed expansion into Federal Lease UTU-86038 are:

    a. Not included within an area designated unsuitable for underground coal mining operation (R645-300-133.220);

    b. Not within an area under study for designated land unsuitable for underground coal mining operations (R645-300-133.210);

    c. Not on any lands subject to the prohibitions or limitation of 30 CFR 761.11 {a} (national parks, etc), 761.11 {f} (public buildings, etc.) and 761.11 {g} (cemeteries);

d. Are within 100 feet of a public road. However, no coal mining or reclamation operations are proposed within 100 feet of a public road. No additional surface disturbance is proposed within Federal Lease UTU-86038, thus the requirements of R645-300-133.220 are not applicable.

e. Not within 300 feet of any occupied dwelling (R645-300-133.220).

5. The operation would not affect the continued existence of any threatened or endangered species or result in the destruction or adverse modification of their critical habitats as determined under the Endangered Species Act of 1973. See Technical Analysis dated October 7th, 2009 (16 USC 1531 et seq.) (R645-300-133.500).

6. The Division's issuance of a permit is in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800). See Technical Analysis dated October 7th, 2009. (R645-300-133.600)

7. The applicant successfully bid on Federal Lease UTU-86038 and has secured the mineral rights to the coal therein. The Bureau of Land Management recommended initial approval of the applicants Resource Recovery and Protection Plan (R2P2) on October 6th, 2009. The surface of the proposed expansion area is owned privately by the applicant.

8. A 510 (c) report has been run on the Applicant Violator System (AVS), which shows that: prior violations of applicable laws and regulations have been corrected; neither Consolidation Coal Company nor any affiliated company, are delinquent in payment of fees for the Abandoned Mine Reclamation Fund; and the applicant does not control and has not controlled mining operations with demonstrated pattern of willful violations of the Act of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act (A 510 (c) report was run on October 7th, 2009. See memo to file dated October 8th, 2009. (R645-300-133.730)

9. The operations to be performed under the permit will not be inconsistent with other operations anticipated to be performed in areas adjacent to the proposed permit area.

10. As no new additional surface disturbance is proposed with the addition of Federal Lease UTU-86038, bonding revisions/adjustments are not required. (R645-300-134).

11. No lands designated as prime farmlands or alluvial valley floors occur in the proposed expansion area. See Technical Analysis dated October 7th, 2009 (R645-302-313.100 and R645-302-321.100)

12. As the proposed expansion into Federal Lease UTU-86038 does not call for any additional surface disturbance, the pre- and post-mining land use remains unchanged.

13. The Division has made all specific approvals required by the Act, the Cooperative Agreement, and the Federal Lands Program.

14. All procedures for public participation required by the Act, and the approved Utah State Program are in compliance. The proposed expansion into Federal Lease UTU-86038 did not meet any of the criteria that requires public participation/public notice. (R645-300-120)

15. No structures are located within the proposed expansion area. As such, the requirements and performance standards cited in R645-301-133.720 (relative to existing structures) do not apply. (R645-300-133.720)

16. Consolidation Coal Company agrees to pay all reclamation fees as required by 30 CFR Part 870. (R645-300-133.730)

Environmental Scientist

Permit Supervisor

Associate Director

TECHNICAL MEMORANDUM
Utah Coal Regulatory Program

October 8, 2009

TO: Internal File

THRU: James D. Smith, Permit Supervisor

FROM: Steve Christensen, Environmental Scientist
Ingrid Wieser, Environmental Scientist

RE: Add Zero Zero North LBA, Consolidation Coal Company, Emery Deep, C/015/0015, Task ID #3411

SUMMARY:

On October 6, 2009, the Division of Oil, Gas and Mining (the Division) received an application from Consolidation Coal Company (the Permittee) to revise the approved mining and reclamation plan (MRP) for the Emery Deep Mine. The application proposes to expand the existing Zero Zero North Panel by 120 acres with the addition of Federal Lease UTU-86038. On September 3rd, 2009, the Permittee was the successful bidder on this tract of coal.

The application for the Zero Zero North expansion was submitted previously on September 17, 2009. The Division completed a technical review of the application (Task ID #3405) and identified deficiencies to be addressed prior to receiving final approval.

The following technical memo examines the application relative to the regulations of the State of Utah R-645 Coal Mining Rules.

Findings:

The Division finds that the application meets the State of Utah R645-Coal Mining Rules and should be approved at this time.

TECHNICAL ANALYSIS:

GENERAL CONTENTS

PERMIT APPLICATION FORMAT AND CONTENTS

Regulatory Reference: 30 CFR 777.11; R645-301-120.

Analysis:

The application meets the Permit Application Format and Contents requirements of the State of Utah R645-Coal Mining Rules.

The previous technical review (Task ID #3405) had identified areas where further clarification and information was needed. The Permittee has provided clarification within the application so that it's clear to the reader that additional information pertains directly to the lease expansion of the Zero Zero North Panel. Clarification was provided in Section VI.2.4, *Baseline Information* on the top of Page VI-3 and on the top of the 1st page of Appendix VI-16, *Selected Text From Miller Canyon Tract EA* as requested in the previous technical review.

Findings:

The application meets the Permit Application Format and Contents requirements of the State of Utah R645-Coal Mining Rules.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

GENERAL

Regulatory Reference: 30 CFR 783.12; R645-301-411, -301-521, -301-721.

Analysis:

The application meets the requirements for General Environmental Resource Information requirements as provided for in R645-301-721.

Beginning on page VI-1 of the approved MRP, the Permittee provides descriptions and discussion as to the location and extent of ground and surface water. Plates VI-1 through VI-3 depict the ground water resources within the permit and adjacent areas including the proposed addition to the Zero Zero North Panel. Plate VI-4 depicts water supply wells, ground water monitoring wells as well as the surface and ground water monitoring sites.

Water right information is provided in Appendix VI-4 and Table VI-1. Seasonal variations in groundwater levels are discussed in Section VI.2.4.1. The depths of the wells (as well as other completion details of the wells) are provided in Table VI-2.

The general hydrologic information contained in chapter VI encompasses the proposed expansion of the Zero Zero North panel.

Additionally, the Permittee has submitted the requisite information relative to Historic/Archeological, Biological and Vegetative Resources. (See Discussion Below)

Findings:

The application meets the General Environmental Resource Information requirements as provided for in R645-301-721.

ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR 785.19; 30 CFR 822; R645-302-320.

Analysis:

Alluvial Valley Floor Determination

The application meets the Alluvial Valley Floor Determination requirements as provided for in R645-302-320. Chapter XI, *Alluvial Valley Floors*, of the approved MRP contains information regarding alluvial valley floors (AVF's) within and adjacent to the permit area (including the Zero Zero North expansion area). Plate V-5, "*Subsidence Monitoring Points and Buffer Zones*" depicts the locations of the alluvial valley buffer zones established by the Permittee. The proposed expansion to the Zero Zero North Panel is not located within an identified AVF.

Based upon previously submitted information within the approved MRP as well as numerous site visits by Division staff, the Zero Zero North Expansion panel does not meet the criteria of an Alluvial Valley Floor. The surficial geology is predominantly Mancos Shale. Though the area is flood irrigated, the source of the water is approximately 22 miles from the site. In addition, there is no evidence of terraces within or adjacent to the Zero Zero North Expansion area.

Prime Farmland

The application meets the Prime Farmland requirements of the State of Utah R645-Coal Mining Rules.

Based upon site visits by Division staff and the review of existing soil, geologic and hydrologic data, the proposed lease expansion is not located within an area that meets the criteria of Prime Farmland.

Findings:

The application meets the Alluvial Valley Floor Determination requirements as provided for in R645-302-320.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

The application meets the Historic and Archeological Resource Information requirements of the State of Utah R645-Coal Mining Rules.

The Permittee submitted a cultural resource report conducted by Todd Seacat and Jody Patterson of Montgomery Archaeological Consultants. The Report is numbered MOAC 08-096 and was prepared on July 14, 2008. The research resulted in the location of 29 sites within the 120-acre expansion area. The report was included in the EA for the BLM and received SHPO concurrence in February of 2009.

Of the 29 identified sites, 17 sites were considered eligible for listing in the National Historic Register. According to the management recommendations of the report, five eligible sites are located north west of the coal burn line (shown in Figure 1 of the report). These sites will require periodic monitoring for subsidence impacts by an archaeologist. Additional mitigation could be required. The remaining twelve sites are situated outside of the subsidence zone and should not be affected.

With the periodic monitoring of the five eligible sites, the researchers found that there would be no adverse effect to cultural resources with this 120-acre expansion.

Findings:

The application meets the Historic and Archeological Resource Information requirements of the State of Utah R645-Coal Mining Rules.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Analysis:

The application meets the Vegetation Resource Information requirements of the State of Utah R645-Coal Mining Rules.

The application includes appendix VIII-6, Biological Resources of the Zero Zero North LBA, Plant Communities, and TES species study conducted by Mt. Nebo Scientific in November of 2008.

Plant Communities of the Miller Tract Area 2008:
Dr. Pat Collins of Mt. Nebo Scientific conducted this survey using aerial photography and ground data collection. The following plant communities were mapped in the area: Shadscale, Greasewood, Saltgrass, Riparian, Pasture Land, Sagebrush and tamarisk. A vegetation map is included in the report. No surface disturbances are proposed. Subsidence is the only possible effect on vegetation from the proposed undermining.

Threatened, Endangered and Sensitive Species of the Miller Tract Area 2008:
Dr. Pat Collins of Mt. Nebo Scientific conducted a file search for locations of sensitive species that may be present in the study area. A site-specific survey was also conducted within the miller tract from April to June 2008. No TES species were found in the area.

Findings:

The application meets the Vegetation Resource Information requirements of the State of Utah R645-Coal Mining Rules.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

The application meets the Fish and Wildlife Resource Information requirements of the State of Utah R645-Coal Mining Rules.

An updated plate 10-1, Selected Wildlife Information that contains the Miller Tract is included in the application. The new area contains the following:

- Crucial/Critical Ring Necked Pheasant year long habitat
- An active Prairie Dog Town
- Burrowing Owl Habitat
- Substantial Value Winter Elk Habitat

A TES, Prairie Dog and Burrowing Owl Survey is included with the application in appendix VIII-6.

TES Survey

Dr. Pat Collins of Mt. Nebo Scientific conducted the TES survey in 2008. Dr. Collins consulted the DWR database of sensitive and high interest wildlife species. Of the listed wildlife species, little or no habitat is present with in the Miller tract. The only species that may be present were Burrowing Owl and White tailed Prairie Dog. The results of these two surveys are located in the following reports.

Prairie Dog Survey

Field stations were set up at a known prairie dog colony within the Miller tract to record the activity. The Survey verified that the sensitive species, white tailed prairie dogs, were present at the colony. This colony is shown on figure 1 of the report and plant 10-1.

Burrowing Owl Survey

This survey was conducted by Dr. Pat Collins of Mt. Nebo Scientific between April 15 and July 15th 2008. All active prairie dog burrows were monitored during morning and evenings. It was concluded that Burrowing owls were also present in the active prairie dog colony shown within the miller tract on plate 10-1 and on figure 1 of the report. Dr. Collins consulted with DWR biologists for the survey and proposed impact to the owls. It was concluded that the owls could be negatively affected during their most critical life period (March through June) due to expected subsidence in the area because of undermining. In a conversation with Tony Wright, Sensitive species Biologist of DWR, Tony expressed concern for subsiding the prairie dog/burrowing owl habitat. Collapsing the burrows and/or causing stream downcutting into the habitat would adversely affect the species. According to Mr. Wright and the US Fish and Wildlife Service's Utah Field Office Guidelines for Raptor Protection from Human and land Disturbances, Mining related disturbance cannot occur between March 1 and August 31. In addition, subsidence impacts occurring at any time in the area should be monitored to make sure the habitat remains suitable for the species.

Findings:

The application meets the Fish and Wildlife Resource Information requirements of the State of Utah R645-Coal Mining Rules.

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Analysis:

Baseline Information

The application meets the requirements for Baseline Information as required by R645-301-724. Beginning on page VI-3 of the approved MRP, the Permittee provides baseline information for the ground and surface water resources located in within and adjacent to the proposed Zero Zero North Panel.

In addition, the Permittee submitted additional baseline information in Appendix VI-16. As the expansion of the Zero Zero North Panel is a Federal leasing action, an Environmental Assessment (EA) was conducted. The Permittee has provided relevant baseline information from the EA in Appendix VI-16, *Selected Text from Miller Canyon Tract EA.*

The lease expansion area of the Zero Zero North Panel is bisected by Miller Canyon. Based upon site inspections by Division personnel, it's been determined that the reach of Miller Canyon that flows through the expansion area conveys irrigation return flow, runoff from snowmelt and precipitation events and discharge from a small spring (i.e. ephemeral in nature).

The volume of irrigation return flow within the Miller Canyon drainage is of sufficient volume and duration to support a small riparian corridor. On the 1st page of the baseline information in Appendix VI-16, the Permittee provides data obtained from the United States Geological Survey to establish water quality ranges for area drainages. The data clearly shows that the water quality degrades rapidly from the Emery Canal diversion upstream of the lease expansion (below 300 mg/L TDS) to Muddy Creek just below Miller Creek (as high as 3,715 mg/L).

The Permittee establishes that the primary source of flow to the Miller Canyon drainage is from irrigation return flow. During the environmental assessment, the Bureau of Land Management (BLM) conducted numerous site visits. The information contained in Appendix VI-16 discuss how during a BLM site visit on April 24th, 2008 (prior to the start of seasonal irrigation practices), there was an absence of stream flow in Miller Canyon. The only flow documented at that time was from Christiansen Spring (SP-15 in the DOGM Water Quality Database) at a rate of less than 1 gallon per minute. Upon a return site visit, BLM representatives observed flows (following the instigation of seasonal irrigation practices) in excess of 100 gallons per minute.

Probable Hydrologic Consequences Determination

The application meets the requirements for Probable Hydrological Consequences (PHC) as required in R645-301-728. Beginning on page VI-16 of the application, the Permittee discusses the potential impacts from coal mining activities on the quality and quantity of surface and groundwater flow within and adjacent to the permit (including the proposed Zero Zero North Panel expansion into Federal Lease UTU-86038). The Permittee further provides detailed discussion as to how the potential impacts will be minimal and if necessary, can be mitigated. The approved PHC discussion includes the proposed expansion area of the Zero Zero North Panel. The following potential impacts have been evaluated:

- Contamination from acid- or toxic-forming materials;
- Impacts to groundwater availability;
- Impacts to surface water availability;
- Increased total dissolved solids concentrations in surface and groundwater;
- Flooding or streamflow alteration;
- Potential hydrocarbon contamination
- Coal spillage during hauling.

Recent ground water modeling (utilizing monitoring well data obtained from the mine site and surrounding vicinity) performed at the Emery Deep Mine provided the basis for determining the lateral extent of potential ground water impacts associated with mining activity at the site.

As part of the federal leasing process of lease UTU-86038, an Environmental Assessment (EA) was conducted on the 120-acre expansion tract of the Zero Zero North Panel. The EA was provided to the Division prior to the submission of the application. The previous technical analysis (Task ID #3405) had identified a deficiency relative to the probable hydrologic consequences of mining within the 120-acre federal lease addition of the Zero Zero North Panel.

Beginning on page VI-27b, the Permittee provides a thorough discussion of the hydrologic resources within the Zero Zero North expansion and the potential for impacts. As no surface disturbance is planned in the expansion area, accelerated runoff and erosion will not occur. However, due to the full-extraction mining techniques to be utilized in the tract, subsidence could alter local drainage patterns by producing non-uniform settling and tension cracks. From previous permitting actions, the Permittee has provided a commitment to mitigate/repair any surface drainage impacts as a result of subsidence. In areas previously subsided, the tension cracks that formed at the surface have been observed to 'self heal' over a relatively short period of time. The surficial geology of the permit and adjacent area is

predominantly Mancos shale. The clay components of this soil unit allow for fairly rapid filling of the tension cracks as they swell and expand in response to precipitation events.

As discussed in the MRP, the Ferron aquifer is intercepted by the mining activity at the Emery Deep Mine. As mining expands into the Zero Zero North expansion area, the groundwater in the Ferron Sandstone will continue to be intercepted. However, given the relatively small area of undermining associated with the expansion, it's unlikely that the quantity of intercepted water will change significantly.

Christiansen Spring (SP-15) is located within the expansion area and will be within the cone of depression resulting from mine dewatering. The groundwater modeling provided in the MRP suggests that the potentiometric surface in the vicinity of the spring will potentially decline approximately 24 feet. Such a decline could affect the discharge of the Ferron Sandstone groundwater at Christiansen Spring. However, it's expected that pre-mining groundwater levels will reestablish once mining activity is complete. In addition, the spring is not located within the proposed mining area where subsidence will occur. As a result, it's not expected that the physical setting of the spring would be disturbed.

The Miller Canyon drainage is partially undermined by the proposed expansion of the Zero Zero North Panel. Based upon historical baseline data as well as numerous field observations by Division staff, it's clear that the Miller Canyon drainage flows in response to precipitation events, snowmelt events and irrigation return flows (i.e. ephemeral in nature). As a result, the potential for any potential subsidence to impact surface water resources within the proposed expansion area is minimal. Additionally, if any impacts to surface water resources or state appropriated water rights are produced, the Permittee has provided a commitment in Chapter VI of the approved MRP to promptly replace and/or repair said impacts. Observations of similar mining activity at the mine under similar conditions (i.e. similar overburden, geology, ground and surface water regime's etc.), have not produced significant impacts to hydrologic resources.

The Division finds that the proposed expansion of the Zero Zero North Panel has been designed to prevent material damage to the hydrologic balance outside the Permit area.

Findings:

The application meets the Hydrologic Resource requirements of the State of Utah R645-Coal Mining Rules.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

The application meets the Maps, Plans and Cross Sections of Resource Information as required by the State of Utah R645-Coal Mining Rules.

With the additional lease area being added to the Zero Zero North Panel, the Permittee has revised all relevant plates/maps to depict the revised adjacent area. Hydrologic Plates VI-1, Plate VI-2, Plate VI-4, Plate VI-5, Plate VI-6, Plate VI-7, Plate VI-8, Plate VI-9 and Plate VI-10 have all been revised to depict the additional mining area of the Zero Zero North Panel.

Monitoring and Sampling Location Maps

The MRP meets the requirements for Monitoring and Sampling Location Maps as required by R645-301-731. Plate VI-4, *Ground Water Monitoring Well and Surface Water Monitoring Site Locations*, depicts the locations of all surface and groundwater monitoring points both within and adjacent to the permit area. The additional mining area of the Zero Zero North Panel has been added to the adjacent area depicted on Plate VI-4.

Subsurface Water Resource Maps

The MRP meets the requirements for Subsurface Water Resource Maps as required by R645-301-731. Plate VI-1 depicts the potentiometric surface of the Upper Ferron Sandstone aquifer as of 1979. Plate VI-2 depicts the potentiometric surface of the Lower Ferron Sandstone aquifer as of 1985. Plates VI-7 and VI-8 depict the potentiometric surface of the Upper and Lower Ferron Sandstone respectively for 2006. Plate VI-3 depicts the water rights located within and adjacent to the permit area (including the Zero Zero North Panel).

All of the aforementioned plates have been revised to depict the additional mining area of the Zero Zero North panel.

Surface and Subsurface Manmade Features Maps

The MRP meets the requirements for Surface and Subsurface Manmade Features Maps as required by R645-301-731. Plate VI-4 depicts all surface and subsurface manmade features located within the permit and adjacent area (including the proposed mining area expansion of the Zero Zero North Panel).

Surface Water Resource Maps

The MRP meets the requirements for Surface Water Resource Maps as required by R645-301-731. Plate VI-4 depicts all surface water located within and adjacent to the permit area (including the proposed expansion of the Zero Zero North Panel).

Well Maps

The MRP meets the requirements for Well Maps as required by R645-301-731. Plate VI-4 depicts all groundwater wells (including monitoring wells) located within and adjacent to the permit area (including the proposed expansion of the Zero Zero North Panel).

Findings:

The application meets the Maps, Plans and Cross Sections of Resource Information requirements of the State of Utah R645-Coal Mining Rules.

OPERATION PLAN

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: 30 CFR784.17; R645-301-411.

Analysis:

The application meets the Protection of Public Parks and Historic Places as required by the State of Utah R645-Coal Mining Rules.

See the above information on Historic Resource information. The Permittee has provided a commitment for a plan to monitor the eligible sites that could be damaged due to subsidence.

In Chapter X-a page 1. The Permittee states, " Per management recommendations on page 19 (MOAC-08-095), the five eligible sites (42Em3964, 42Em3965, 42Em3966, 42Em3969, and 42Em3974) will be monitored, post subsidence, for impacts by a qualified archeologist and detailed in the annual report. If mitigation is necessary, a mitigation plan will be submitted to BLM."

Findings:

The application meets the Protection of Public Parks and Historic Places as required by the State of Utah R645-Coal Mining Rules.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

Renewable Resources Survey

The application meets the requirements for Renewable Resources Survey as required in R645-301-724.

A pre-subsidence survey is located in Appendix V-5 with an associated Figure 1 that depicts the area surveyed. Renewable Resource lands are depicted on the Vegetation and Landuse Map Plate VIII-1. Acreages of pastureland are included in the legend.

Subsidence Control Plan

The application meets the Operational Plan requirements for Subsidence Control Plan as provided in R645-301-525.120, -525.480

Section V.B of the MRP discusses subsidence monitoring. Page 36 of the MRP outlines the steps and elements of the proposed subsidence-monitoring plan. The plan calls for the establishment of a series of reference points to be established outside the theoretical angle of draw. Item 1A on page 36 calls for a mine representative to inspect monthly the areas designated as "full extraction" on Plate V-5. The monthly inspections will continue until the survey monitoring points below indicate that there is no subsidence occurring. A record of the monthly inspections will be produced and forwarded to the Division. A copy of the inspection will also be kept at the mine office.

In addition, the Permittee has committed to establish pre-mining elevations and gradients of any irrigation ditches and pond embankments within the angle of draw (See Item 11 in chapter V page 37). The Permittee will also monitor these areas by visual inspection and post-subsidence ground survey to establish the effects of subsidence. The Permittee has committed to providing the Division with a quarterly subsidence mitigation report that describes the surface mitigation projects and their status broke down by surface landowner.

Subsidence mitigation efforts are further discussed on pages 39-42 of Chapter V of the approved MRP. Pages 41 and 42 of the approved MRP generally discuss timetables and how the Permittee will work with landowners and the Division regarding mitigation efforts. On page 39 of Chapter V of the approved MRP, the Permittee discusses the mitigation process relative to subsidence damage to structures and State appropriated water supplies. The Permittee commits to "restore, rehabilitate or remove and replace, to the extent technologically and economically feasible, each materially damaged structure, feature or value".

Page 41 in Chapter V of the MRP discusses subsidence mitigation. The Permittee states, "If subsidence occurs which prevents flow through a ditch that is used each summer, then it will be necessary to repair the ditch as soon as practical even though future subsidence may necessitate further work".

In addition, the mine has been designed to preclude subsidence in areas occupied by perennial streams. The Permittee has produced a plan to prevent subsidence from affecting Quitchupah Creek, Christiansen Wash and the alluvial valley floor area on the west side of the permit area by establishing buffer zones in these areas. Plate V-5, *Subsidence Monitoring Points and Buffer Zones*, depicts a stream buffer zone extending the full length of Christiansen Wash in the areas where full extraction mining will take place. Additionally, a buffer zone has been established in the alluvial valley floor area around Quitchupah Creek. The overburden depth and the angle of draw were used to determine the buffer zone dimensions. The buffer zone for Quitchupah Creek and Christiansen Wash includes an additional standoff distance of 100 ft. on either side.

The Permittee provides further clarification on subsidence mitigation on page 39 of the MRP. The Permittee commits to "mitigate the damage in accordance with R645-301-525.500" and that "the mitigation process will be performed in accordance with R645-301-731.530, R645-301-525.520 and R645-301-525.530". R645-301-731.530 calls for the prompt replacement of any state appropriated water supply that is contaminated, diminished or interrupted by underground coal mining and reclamation activities. R645-301-525.520 and R645-301-525.530 deal with the mitigation of any structures that are impacted by mining activity

The Permittee provides a commitment to "repair or replace any adversely affected State appropriated water supplies that are contaminated, diminished or interrupted" as required by R645-301-731.530 on page 41 of Chapter V of the MRP.

Per R645-301-731.530, the Permittee is required to promptly replace any State-appropriated water supply that is contaminated, diminished or interrupted by underground coal mining and reclamation activities. On page V-42 of the application, the Permittee outlines water replacement measures to be initiated in the event that mining activity was to impact the Emery Town Wells. If the town of Emery surface water system (Muddy Creek) becomes inoperable and the backup wells (Wells #1 and #2) have been impacted by mining activity, the Permittee provides a commitment to "hauling water to the Emery treatment facility until the towns surface system becomes operable, an alternative source is secured or the aquifer recharges".

Findings:

The application meets the hydrologic requirements for Renewable Resources Survey as required by the R645-Coal Mining Rules.

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

Protection and Enhancement Plan

The application meets the Fish and Wildlife Information requirements of the State of Utah R645-Coal Mining Rules.

The previous technical analysis (Task ID #3405) had identified a deficiency relative to a protection and enhancement plan for the active prairie dog town and burrowing owl nesting area located in the Miller tract. The Division requested that the area be monitored during and after subsidence to ensure that no adverse affects from mining had occurred. In addition, a commitment was requested to conduct mitigation in the event that adverse affects from mining did occur.

During consultation with Mr. Nathan Darnall of the United States Fish and Wildlife Service (USFWS), Mr. Darnall suggested that the operator collapse all burrows that are to be undermined prior to March and install artificial burrows elsewhere. In Appendix IX-3, the Permittee provided the following commitment, "Per consultation with DOGM, Utah Division of Wildlife Resources and the US Fish and Wildlife Service, Consol plans to implement a protection and enhancement plan for the burrowing owl prior to March 1st, 2010. The prairie dog colony, as depicted in the above mentioned appendix at Page 6 Figure 1, resides on private surface owned in fee by Consol that has been tilled in the past." The Permittee goes on to state,

"One recommendation from the USFWS that may be implemented is for Consol to work with DOGM to locate a remote area to add burrowing owl nesting dens provided by DWR. This enhancement project will be complete prior to the March 1, 2010 burrowing owl nesting period."

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

Riparian areas exist in the Miller Tract Area according to the Plant Survey in Appendix VIII-1. Miller Creek is an ephemeral drainage that is used for agriculture. The water in the drainage is maintained by the water users and would not be as significant otherwise. The Permittee has committed to maintaining the water flow in the stream.

Findings:

The application meets the Fish and Wildlife Information requirements of the State of Utah R645-Coal Mining Rules.

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

Refuse Piles

The application meets the Refuse Pile requirements of the State of Utah R645-Coal Mining Rules.

The proposed expansion of the Zero Zero North Panel does not call for additional surface disturbance. Refuse will not be stored at the site.

The approved MRP contains the design data, maps and hydrologic model runs used to design the drainage system at the existing refuse pile site. R645-301-746.212, as stated above, requires that runoff from a refuse pile must be diverted into stabilized diversion channels that are designed to safely pass the runoff from a 100-year, 6-hour event. Upon review of the submitted model, as well as the surface drainage map, the drainage network at the current refuse pile location meets this requirement.

A permanent refuse disposal site has been designed. The site has been designed to safely pass the 100-year, 6-hour event. Storm water runoff generated from the site will be diverted in

to Pond No. 8. The Permittee has demonstrated that Pond No. 8 has adequate storage capacity to safely contain the storm water runoff generated from the permanent refuse disposal site.

Findings:

The submittal meets the Refuse Pile requirements of R645-301-746.212.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

General

The application meets the Operational Plan requirements for General Hydrologic information as provided in R645-301-731.

Chapter VI of the approved MRP discusses the hydrologic located within the Zero Zero North mining expansion area; including ground and surface water information, water uses, water rights as well as the probable hydrologic consequences of full extraction mining within that area.

The MRP outlines the measures to be taken during the operational mining phase to minimize disturbance of the hydrologic balance within and adjacent to the permit area as well as prevent material damage to the hydrologic balance.

Groundwater Monitoring

The approved MRP meets the Operational Plan requirements for Groundwater monitoring as provided in R645-301-731.210. The Permittee does not propose any additional ground water monitoring as a result of full extraction mining within the expansion of the Zero Zero North panel. Christiansen Wash (SP-15) is located directly within the Miller Canyon drainage. SP-15 is already part of the operational groundwater-monitoring program for the Emery Deep Mine. No additional groundwater monitoring sites have been proposed, nor are they required with the proposed mining area expansion of the Zero Zero North Panel.

The Permittee provides comprehensive water monitoring information as to the specific ground and surface water sites and their respective monitoring protocols in Table VI-17, *Emery Mine Hydrologic Monitoring Program.*

Surface Water Monitoring

The MRP meets the Operational Plan requirements for Surface Water Monitoring as provided in R645-301-731.220. Additional surface water monitoring within the Zero Zero North panel is not necessary. As discussed in the baseline information section above, the Miller Canyon drainage is ephemeral and flows only in direct response to snowmelt/precipitation events and irrigation return flow. As a result, additional surface water monitoring points are not required with the expanded mining area of the Zero Zero North Panel.

Plate VI-4 of the application depicts the surface water monitoring points within the permit area as well as adjacent to it. Table VI-17, *Emery Mine Hydrologic Monitoring Program* provides the sampling protocols for all ground and surface water sites within the permit and adjacent area.

Water-Quality Standards And Effluent Limitations

The MRP meets the requirements for Water-Quality Standards and Effluent Limitations as outlined in R645-301-751. The Permittee operates under a UPDES discharge permit (#UT0022616) issued by the Utah Division of Water Quality (DWQ) and controls discharges from the mine to be consistent with that permit. The Emery Mine UPDES permit currently allows a maximum salt load of 12 tons/day to be discharged from the mine. If this load were discharged constantly throughout the year, the annual salt load from the mine to the Muddy Creek watershed would be 4,380 tons/year. Upon discussions with DWQ personnel, it's anticipated that the salt-load limit will change to approximately 3,839 tons/year. The addition of the Zero Zero North panel does not require additional UPDES effluent/discharge monitoring.

Diversions:

The application meets the requirements for Diversions as required in R645-301-732.300, 742.100, 742.200, 742.300, 742.320 and 742.330. No diversions are proposed/required with the expanded mining area of the Zero Zero North Panel.

Stream Buffer Zones

The application meets the Stream Buffer Zone requirements as provided in R645-301-731.600. Page VI-27 discusses stream buffer zones. Plate V-5, Subsidence Monitoring Points and Buffer Zones, depicts the location of stream buffer zones established on both Christiansen Wash and Quitchupah Creek. All perennial and intermittent streams in the permit area are protected by 100-foot stream buffer zones on either side of these streams. No perennial or intermittent streams are located within 100-feet of the proposed Zero Zero North Panel.

Sediment Control Measures

The application meets the Sediment Control Measure requirements as provided in R645-301-732. As no surface disturbance is proposed with the additional mining area of the Zero Zero North Panel, no additional sediment control measures are required.

Siltation Structures: Sedimentation Ponds

The application meets the Siltation Structures: Sediment Ponds requirements as provided in R645-301-732.200 and –742.220. As no surface disturbance is proposed with the additional mining area of the Zero Zero North Panel, additional siltation structures (i.e. sedimentation ponds) are not required.

Discharge Structures

The application meets the Discharge Structures requirements as provided in R645-301-734, -744. As no surface disturbance is proposed with the additional mining area of the Zero Zero North Panel, no discharge structures are necessary.

Ponds, Impoundments, Banks, Dams, and Embankments

The application meets the requirements for Ponds, Impoundments, Banks, Dams and Embankments as required by R645-301-536.800 and-744.100. As no surface disturbance is proposed with the additional mining area of the Zero Zero North Panel, no additional ponds, impoundments, banks, damns or embankments are required.

Findings:

The application meets the requirements for Hydrologic Information as required by the R645-Coal Mining Rules.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Findings:

The application meets the Maps, Plans and Cross Sections of Mining Operations requirement as provided in the State of Utah R645-Coal Mining Rules.

Plate IV-2, *UG Operations Plan* and Plate VI-6, *Historic and Planned Mining Sequence* has been revised to depict the additional mining area of the Zero Zero North Panel.

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

The application meets the General Requirements for Reclamation as provided in R645-301-760. No surface disturbance is proposed with the additional mining area of the Zero Zero North Panel,. As a result, reclamation requirements are not applicable to this application.

Findings:

The application meets the Reclamation requirements as provided in the R645-State of Utah Coal Mining Rules.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Reclamation

The application meets the Road Systems and Other Transportation Facilities requirements as provided in R645-301-732.

Additional roads are not proposed with the addition mining area of the Zero Zero North Panel.

Findings:

The application meets the Road Systems and Other Transportation Facilities requirements as provided in R645-301-732.

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-730.

Analysis:

The application meets the Cumulative Hydrologic Impact Assessment (CHIA) requirements as provided in R645-301-730.

The proposed expansion of the Zero Zero North Panel lies within the existing CHIA boundary. As discussed in the PHC section of this analyses (See Above), the proposed mining expansion into Federal Lease UTU-86038 has been designed to prevent material damage to the hydrologic balance outside the permit area.

RECOMMENDATIONS:

The application should be approved at this time.

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United States Department of the Interior

OFFICE OF SURFACE MINING
Reclamation and Enforcement
Western Region Office
1999 Broadway, Suite 3320
Denver, CO 80202-3050

UT-0005

December 4, 2009

Mr. John Gefferth
Environmental Engineer
Consolidation Coal Company
P.O. Box 566
Sesser, Illinois 62884

Dear Mr. Gefferth:

On November 30, 2009, the Department of the Interior approved a mining plan modification for new Federal Lease UTU-86038 at Consolidation Coal Company's Emery Deep Mine located in Emery County, Utah. This mining plan action relates to Federal lands associated with the Utah Department of Natural Resources, Division of Oil, Gas and Mining's (UT-DOGM) Decision for Add Zero Zero North LBA, Consolidation Coal Company, Emery Deep Mine, C/015/0015, Task ID# 3411 dated October 7, 2009.

I have enclosed a copy of the mining plan approval document and associated map for this new mining plan. Please read the terms and conditions of the mining plan approval document carefully. Mining and reclamation operations must be conducted in accordance with both the Utah state permit and the approved mining plan.

The November 30, 2009, approval allows you to initiate coal mining operations in Federal Lease UTU-86038 within the area of mining plan approval.

If you have any questions, please contact me at (303) 293-5038.

Sincerely,

Carl R. Johnston
Utah Federal Lands Coordinator

Enclosure

cc: BLM - Utah State Office
BLM - Price Field Office
Utah Department of Natural Resources